ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
A/G	ABOVE GRADE
BF	BLIND FLANGE
BFP	BACKFLOW PREVENTER
B/G	BELOW GRADE
BLDG	BUILDING
CONC	CONCRETE
CONN.	CONNECTION
CONT.	CONTINUATION
COR	CONTRACTING OFFICER'S REPRESENTATIVE
DIA.	DIAMETER
DN	DOWN
DEPT	DEPARTMENT
DWG	DRAWING
ELEC.	ELECTRICAL
ELEV	ELEVATION
FP	FIRE PROTECTION
FS	FLOW SWITCH
GPM	GALLONS PER MINUTE
HP	HORSE POWER
LPD	LOW POINT DRAIN
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
NC	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO.	NUMBER
PIV	POST INDICATOR VALVE
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
PSIG	POUNDS PER SQUARE INCH GAUGE
REQD	REQUIRED
RPM	ROTATIONS PER MINUTE
SP	STATIC PRESSURE
STL	STEEL
TYP.	TYPICAL
UL	UNDERWRITER'S LABORATORY
W/	WITH
W/O	WITHOUT

FIRE PROTECTION LEGEND

- CONNECT EXISTING PIPE TO NEW PIPE
- FIRE DEPARTMENT CONNECTION
- FP — FIRE PROTECTION SPRINKLER PIPING
- FS — FLOW SWITCH
- GATE VALVE
- O,S & Y GATE VALVE W/TAMPER SWITCH
- WET STANDPIPE RISER
- WATER MOTOR ALARM (SHIELD OPTIONAL)
- F — FIRE PROTECTION WATER SUPPLY
- FIRE HYDRANT, TWO HOSE OUTLET W/PUMPER CONNECTION
- FIRE DEPARTMENT CONNECTION (SIAMESE)
- FREE STANDING FIRE DEPARTMENT CONNECTION
- POST INDICATOR VALVE
- ANGLE VALVE (ANGLE HOSE VALVE)
- ALARM CHECK VALVE
- UG1 — HYDRAULIC CALC NODE NUMBER
- WALL INDICATOR POST

FIRE ALARM SYSTEM DEVICE LEGEND

- P — FIRE ALARM SMOKE DETECTOR (PHOTOELECTRIC TYPE)
- D — FIRE ALARM DUCT SMOKE DETECTOR
- FIXED TEMPERATURE HEAT DETECTOR, EXTRA HIGH RATED (325-375 °F)
- F — FIRE ALARM MANUAL PULL STATION, WALL MOUNT 48" AFF.
- FIRE ALARM SPEAKER & VISUAL STROBE, WALL MOUNT 80" AFF.
- CM — ADDRESSABLE CONTROL MODULE
- MM — ADDRESSABLE MONITORING MODULE
- DL — DOOR LOCKING HARDWARE, ELECTRIC STRIKE, MAG LOCK, ETC.
- FS — FIRE ALARM FLOW SWITCH
- PS — DRY PIPE VALVE PRESSURE SWITCH
- TS — FIRE ALARM TAMPER SWITCH
- SMOKE DAMPER (INSTALLED PER MECH DWGS)

GENERAL NOTES:

1. THE FIRE PROTECTION CONTRACTOR SHALL MODIFY THE EXISTING WET PIPE AUTOMATIC SPRINKLER SYSTEMS AND FIRE ALARM SYSTEMS AS SHOWN ON THE DRAWINGS.
2. SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13 "STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS", NFPA 101, "LIFE SAFETY CODE", VA "FIRE PROTECTION DESIGN MANUAL" APRIL 2009, AND THE PROJECT SPECIFICATIONS. EDITIONS OF NFPA STANDARDS IN EFFECT AT BID DATE SHALL APPLY.
3. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. IF ANY DISCREPANCIES ARE OBSERVED BETWEEN REQUIREMENTS OF THESE DRAWINGS AND THOSE OF THE SPECIFICATIONS, NOTIFY THE CONTRACTING OFFICERS TECHNICAL REPRESENTATIVE (COTR) FOR DISPOSITION.
4. FOR CODE INTERPRETATION AND ENFORCEMENT, THE AUTHORITY HAVING JURISDICTION (AHJ) FOR ALL VA PROJECTS IS ULTIMATELY THE DEPUTY UNDER SECRETARY FOR HEALTH FOR OPERATIONS AND MANAGEMENT (10N), WITH THE SAFETY AND FIRE PROTECTION ENGINEER (10NS) ACTING AS THE VA FIRE MARSHAL. AT THE MEDICAL CENTER LEVEL, THE RESPECTIVE NETWORK SAFETY MANAGER OR NETWORK SAFETY AND FIRE PROTECTION ENGINEER (SFPE) ACTS AS THE AHJ REPRESENTATIVE ON BEHALF OF 10NS.
5. SEE ARCHITECTURAL PHASING PLANS AND SPECIFICATIONS FOR WORK HOURS AND SCHEDULE OF WORK.
6. COORDINATE WITH ARCHITECT REGARDING ANY REQUIREMENTS FOR FIRE WATCH DURING SPRINKLER WORK. MODIFICATIONS TO EXISTING SYSTEMS SHALL BE DONE IN SUCH A WAY TO MINIMIZE THE DOWNTIME OF THE SPRINKLER SYSTEM.
7. THE INTENT OF THE DESIGN IS AS ILLUSTRATED, BUT IS DIAGRAMMATIC ONLY. FIRE PROTECTION CONTRACTOR SHALL VISIT JOB SITE AND BECOME FAMILIAR WITH PROJECT CONDITIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO BID, FABRICATION AND INSTALLATION.
8. THE EXISTING EXTERIOR PIPING SHOWN ON THESE DRAWINGS IS BASED ON DRAWINGS PROVIDED BY THE VA AND HAS NOT BEEN VERIFIED.
9. THE SPRINKLER ARRANGEMENT, PIPE SIZES AND LENGTHS SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND ARE NOT TO BE USED FOR FABRICATION. THE SPRINKLER CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWINGS WITH HYDRAULIC CALCULATIONS AND MATERIAL SPECIFICATIONS FOR APPROVAL IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. SUBMITTALS WILL REQUIRE REVIEW AND APPROVAL BY THE ARCHITECT, THE VETERANS ADMINISTRATION AND THE LOCAL AUTHORITY HAVING JURISDICTION.
10. HYDRAULIC CALCULATIONS SHALL INCLUDE A MINIMUM 10 PERCENT SAFETY FACTOR ON THE AVAILABLE WATER SUPPLY PRESSURE.
11. HYDRAULICALLY CALCULATED SPRINKLER SYSTEMS SHALL BE DESIGNED TO LIMIT VELOCITY IN NEW ABOVEGROUND PIPING TO TWENTY FEET PER SECOND.
12. SPECIAL DESIGN APPROACHES SHALL NOT BE USED.
13. SPRINKLER ZONES SHALL MATCH SMOKE COMPARTMENT ZONES (SEE ARCHITECTURAL PLANS).
14. ALL CARBON STEEL PIPING AND COMPONENTS SHALL BE PAINTED. STAINLESS STEEL AND GALVANIZED PIPING AND COMPONENTS DO NOT REQUIRE PAINTING.
15. ANY ADDITIONAL OFFSETS OR FITTINGS REQUIRED FOR PROPER INSTALLATION, COORDINATION WITH OTHER TRADES, AND/OR TO MAINTAIN PROPER CLEARANCES SHALL BE PROVIDED FOR A COMPLETE AND WORKING SYSTEM.
16. PROVIDE SYSTEM(S) WITH FLUSHING CONNECTIONS PER NFPA 13.
17. ALL SPRINKLER PIPE AND FITTINGS SHALL BE SO INSTALLED THAT THE SYSTEM CAN BE DRAINED PER NFPA 13.
18. ALL CONTROL VALVES ON THE FIRE PROTECTION SYSTEM SHALL BE ELECTRICALLY SUPERVISED PER NFPA 13, BY THE FIRE ALARM SYSTEM. TYPE AND EXACT LOCATION OF FLOW AND SUPERVISORY SWITCHES SHALL BE ACCOMPLISHED BETWEEN THE DIFFERENT RESPONSIBLE TRADES. PROTECTED PREMISES ALARM SYSTEM, SUPERVISION AND WIRING SHALL BE PROVIDED UNDER THE ELECTRICAL DIVISION.
19. FIRE STOP ALL PENETRATIONS OF SMOKE/FIRE PARTITIONS. FIRE STOPPING SHALL BE OF U.L. LISTED ASSEMBLY.
20. SLEEVE ALL PENETRATIONS OF PIPE THROUGH WALLS AND FLOORS.
21. ALL SPRINKLER PIPING MUST BE CONCEALED EXCEPT IN SPACES WITHOUT CEILINGS.
22. SPRINKLER SYSTEM(S) SHALL BE DESIGNED FOR A MAXIMUM WORKING PRESSURE OF 175 PSI PER NFPA 13.
23. SPRINKLER SYSTEM(S) SHALL BE HYDROSTATICALLY TESTED FOR TWO HOURS AT 200 PSI PER NFPA 13.
24. INSPECTORS TEST CONNECTIONS SHALL BE PROVIDED SO THAT EACH WATER FLOW SWITCH, OR PRESSURE MECHANISM, CAN BE TESTED PER NFPA 13. CONNECTION SHALL BE LOCATED IN AN ACCESSIBLE LOCATION AND DISCHARGE TO AN APPROVED EXTERIOR LOCATION. ROUTING OF DRAINS TO INTERIOR SERVICE SINKS IS PROHIBITED.
25. ALL VALVES SHALL HAVE A PERMANENTLY AFFIXED SIGN PER NFPA 13 INDICATING FUNCTION AND SHALL BE SECURED TO THE VALVE WITH SUITABLE CHAIN.
26. PROVIDE A PERMANENTLY ATTACHED HYDRAULIC NAMEPLATE STATING THE REQUIRED DESIGN CRITERIA FOR EACH DESIGNED SYSTEM PER NFPA 13.
27. SPRINKLER DEFLECTORS SHALL BE ALIGNED PARALLEL TO CEILING, ROOF, OR THE INCLINE OF STAIRS PER NFPA 13, UNLESS OTHERWISE NOTED. ALL SPRINKLERS FLUSH WITH TILE CEILINGS.
28. PROVIDE WATER FLOW DETECTING DEVICES ON ALL FIRE PROTECTION RISERS WITH A BUILT IN ADJUSTABLE RETARD (0 - 90 SECONDS) ON ALL SPRINKLER SYSTEMS.
29. ALL SPRINKLERS SHALL BE QUICK RESPONSE TYPE, EXCEPT WHERE SPECIFICALLY PROHIBITED BY NFPA 13, INCLUDING BUT NOT LIMITED TO ELEVATOR SHAFTS AND ELEVATOR MACHINE ROOMS.
30. INSTALL STANDARD RESPONSE INTERMEDIATE TEMPERATURE SPRINKLERS IN ELEVATOR SHAFTS AND ELEVATOR MACHINE RESPONSE ROOMS.
31. RECESSED CHROME PENDENT SPRINKLERS SHALL BE INSTALLED IN PUBLIC AREAS.
32. CONCEALED SPRINKLERS SHALL BE INSTALLED IN DECORATIVE CEILINGS AND THE COVER PLATE SHALL MATCH THE CEILING. COORDINATE EXACT COLOR WITH ARCHITECT.
33. BRONZE UPRIGHT SPRINKLERS SHALL BE INSTALLED IN AREAS WITHOUT CEILINGS.
34. ALL SPRINKLERS SHALL BE INSTALLED ACCORDING TO THEIR LISTED SPACING AND OBSTRUCTION REQUIREMENTS.
35. ALL SPRINKLERS LOCATED IN TILE CEILINGS SHALL BE CENTERED IN CEILING TILES AND FLUSH.
36. SPRINKLER SYSTEM HANGER MATERIAL, SPACING AND METHOD OF ATTACHMENT SHALL BE PER NFPA 13 AND MANUFACTURERS REQUIREMENTS.
37. NEW PORTIONS OF FIRE PROTECTION SPRINKLER SYSTEM(S) SHALL BE SEISMICALLY BRACED IN ACCORDANCE WITH NFPA 13 AND OTHER APPLICABLE CODES. SEE NOTES ON SHEET FP-501. CONTRACTOR IS NOT RESPONSIBLE FOR SEISMIC BRACING OF EXISTING PIPING.
38. SEE FIRE ALARM SYSTEM GENERAL NOTES ON SHEET FP-601.
39. SEE FIRE PUMP LOCATION AND ROUTING OF BUILDING MAINS ON SHEET FP-002.

BID ALTERNATES

1. DEDUCTIVE ALTERNATE ONE DELETES THE ELEVATOR. ELEVATOR SHAFT TO REMAIN. DELETE SMOKE DETECTORS ADJACENT TO ELEVATOR AT EACH LEVEL, ALONG WITH ELEVATOR RECALL FUNCTION.
2. DEDUCTIVE ALTERNATE THREE PROVIDES ONLY A SHELL ON THE FIRST FLOOR (EXCEPT FOR NEW MECHANICAL ROOM F100), WITH NO INTERIOR PARTITIONS OR SUSPENDED CEILING. RATED PARTITION AT CORRIDOR TO REMAIN. FOR THIS ALTERNATE PROVIDE UPRIGHT SPRINKLER HEADS IN FIRST FLOOR, AND SPEAKER/STROBES ONLY AS REQUIRED FOR SHELL SPACE.

NFPA 13 SEISMIC ANALYSIS

LOCATION: MEMPHIS, TENNESSEE
35.144631, -90.026252

Ss, S1 (IBC 1613.5.1):	1.344	0.367
SITE CLASSIFICATION (IBC 1613.5.2):		B
Sds, Sd1 (IBC 1613.5.4):	0.896	0.245
OCCUPANCY CATEGORY (IBC 1604.5):		III
SEISMIC DESIGN CATEGORY (IBC 1613.5.6):		D
SEISMIC DESIGN REQUIRED? (ASCE 7 13.6.8):		YES

(SEISMIC BRACING NOT REQUIRED IF SDC=A, B, OR C)

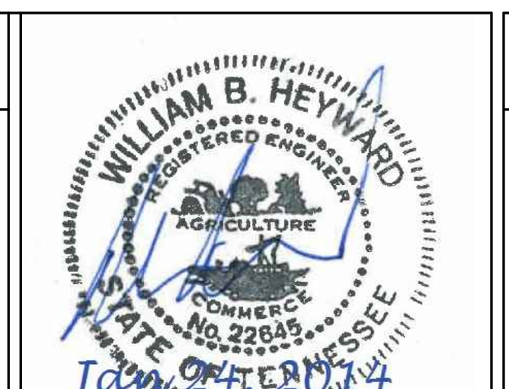
FULLY SPRINKLERED

Revisions: | Date:

CONSULTANTS:

Allen & Hoshall
engineering since 1915
1661 International Drive Memphis, TN 38120
901 820 0820 fax 901 683 1001
www.allenhoshall.com

FIRE PROTECTION
Robert and Company
Engineers, Architects, Planners
229 Peachtree Street, N.E. International Tower
Suite 2000. Atlanta, Georgia 30303-1629
404 577-4000 FAX: 404 577-7119
RAC Project 11023



ARCHITECT/ENGINEERS:

brg3s architects
119 S. Main Street Suite 200
Memphis, Tennessee 38103
t 901.260.9600
f 301.521.1337
w brg3s.com

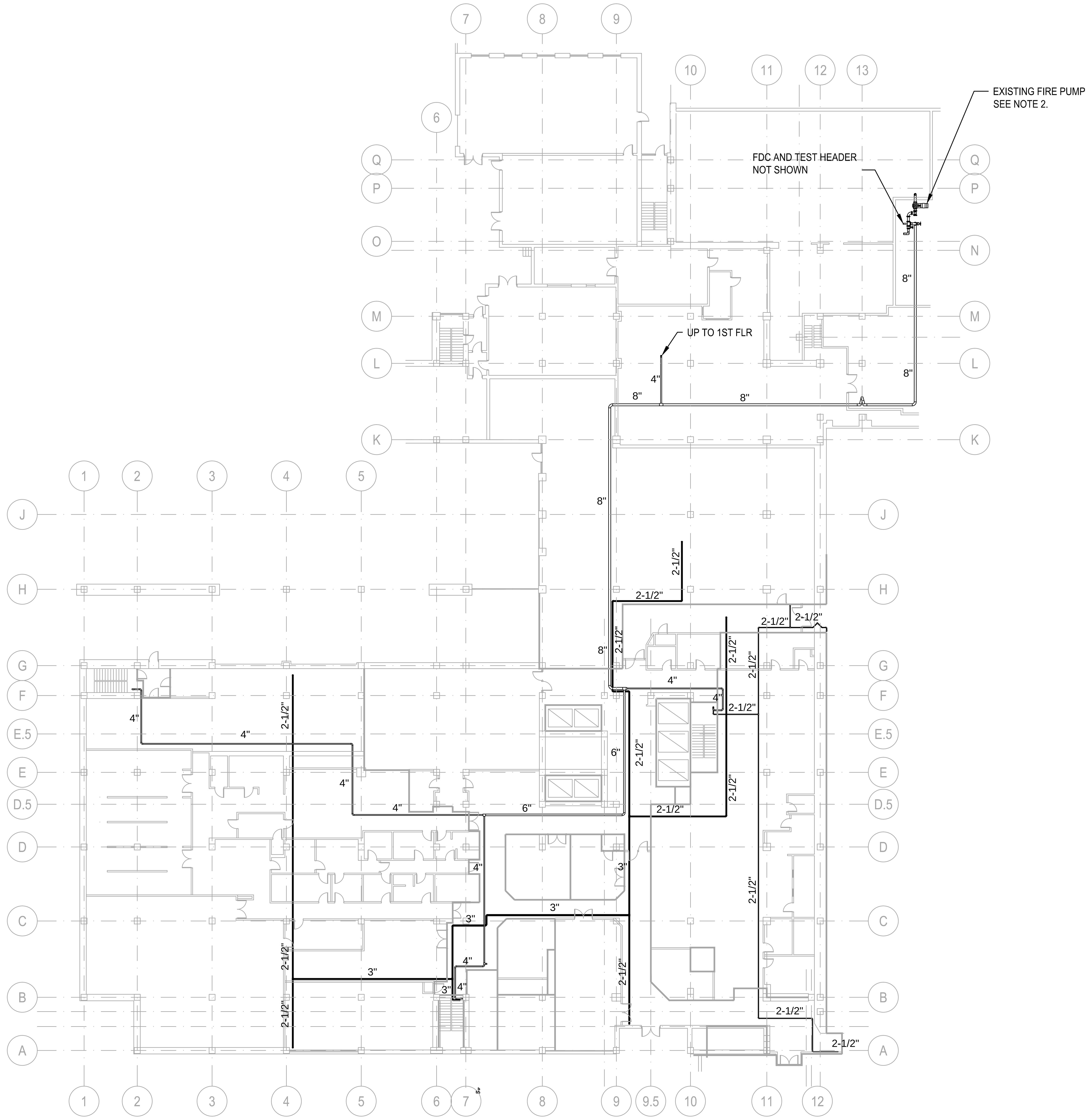
DRAWING TITLE: FIRE PROTECTION GENERAL NOTES, LEGEND & ABBREVIATIONS
SCALE: AS SHOWN
APPROVED PROJECT DIRECTOR:

PROJECT TITLE: VA Building 1A Entrance Expansion
LOCATION: VAMC, Memphis, Tennessee
DATE: Jan 27, 2014 | CHECKED: WBH | DRAWN: PJP

PROJECT NUMBER: 614-318
BUILDING NUMBER: 1A
DRAWING NUMBER: FP-001
DWG. X OF X

GENERAL NOTES:

1. SEE SHEET FP-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.
2. EXISTING FIRE PUMP IS FAIRBANKS MORSE 5824AF, 6" x 5" x 16.5". 75 HP ELECTRIC DRIVE, 1750 RPM, NOMINAL CAPACITY 1000 GPM AT 100 PSIG.
3. THIS DRAWING SHOWS EXISTING STANDPIPE AND SPRINKLER SUPPLY MAINS, AS SHOWN ON SPRINKLER SYSTEM RECORD DRAWINGS. SIZES AND ROUTING OF MAINS HAS NOT BEEN FIELD VERIFIED.



1 FP002 FP002 EXISTING SPRINKLER MAINS GROUND FLOOR

SCALE: 1"=20'

20' 10' 0 20' 40'

1" = 20'- 0"

FULLY SPRINKLERED

Revisions:	Date:

CONSULTANTS:

Allen & Hoshall
engineering since 1915
1661 International Drive Memphis, TN 38120
901 820 0820 fax 901 683 1001
www.allenhoshall.com

FIRE PROTECTION

Robert and Company
Engineers, Architects, Planners
229 Peachtree Street, N.E. International Tower
Suite 2000. Atlanta, Georgia 30303-1629
404 577-4000 FAX: 404 577-7119

RAC Project 11023

WILLIAM B. HEYWARD REGISTERED ENGINEER AGRICULTURE COMMERCE No. 22845 STATE OF TENNESSEE
Jan. 24, 2014

ARCHITECT/ENGINEERS:

brg3s architects

119 S. Main Street Suite 200
Memphis, Tennessee 38103
t 901.260.9600
f 301.521.1337
w brg3s.com

DRAWING TITLE: FIRE PROTECTION SITE PLAN

SCALE: AS SHOWN

APPROVED PROJECT DIRECTOR:

PROJECT TITLE: **VA Building 1A Entrance Expansion**

LOCATION: **VAMC, Memphis, Tennessee**

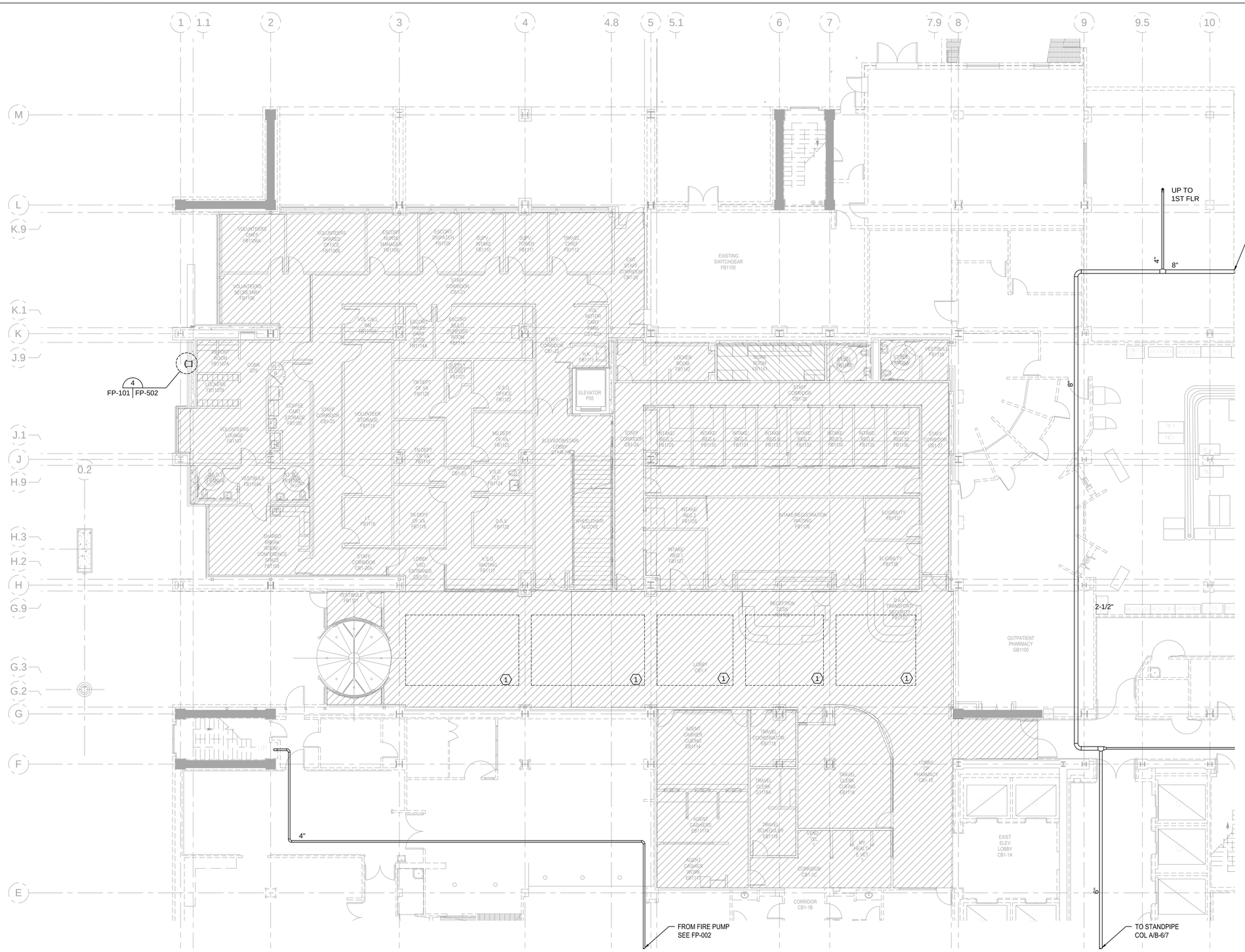
DATE: **Jan 27, 2014** | CHECKED: WBH | DRAWN: JB

PROJECT NUMBER: 614-318

BUILDING NUMBER: 1A

DRAWING NUMBER: FP-002

DWG. X OF X



GENERAL NOTES:

1. SEE SHEET FP-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.
2. PIPING SHOWN IS EXISTING. SEE SHEET FP-002.
3. SEE SHEET FP-001 FOR DESCRIPTION OF BID ALTERNATES.

KEYED NOTES:

(1) RECTANGULAR OUTLINES SHOW TRANSITIONS BETWEEN CEILING ELEVATIONS FROM APPROXIMATELY 9'-0" AFF TO 11'-0" AFF. DO NOT USE PENDANT OR UPRIGHT SPRINKLERS IN 11'-0" CEILING SECTIONS. USE SIDEWALL SPRINKLERS AT TRANSTIONS, IAW DETAIL 3/ SHEET FP-502. SEE ARCHITECTURAL SUSPENDED CEILING PLAN AC-200 FOR ADDITIONAL INFORMATION.

HAZARD CLASSIFICATION:

LIGHT HAZARD
0.10 GPM/SQFT. OVER 1500 SQFT

ORDINARY HAZARD GROUP ONE
0.15 GPM/SQFT. OVER 1500 SQFT

8 0 8 16
SCALE: 1/8" = 1'-0"

1 FP101 | FP101 SPRINKLER ZONE PLAN
VA BUILDING 1A GROUND FLOOR
SCALE: 1/8"=1'-0"

FULLY SPRINKLERED

Revisions:	Date:

CONSULTANTS:

Allen & Hoshall
engineering since 1915
1661 International Drive Memphis, TN 38120
901 820 0820 fax 901 683 1001
www.allenhoshall.com

FIRE PROTECTION

Robert and Company
Engineers, Architects, Planners
229 Peachtree Street, N.E. International Tower
Suite 2000 Atlanta, Georgia 30303-1629
404 577-4000 FAX: 404 577-7119

RAC Project 11023

WILLIAM B. HEYWARD
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURE
No. 22041
STATE OF TENNESSEE

ARCHITECT/ENGINEERS:

brg3s architects

119 S. Main Street Suite 200
Memphis, Tennessee 38103
t 901.260.9600
f 301.521.1337
w brg3s.com

DRAWING TITLE:
SPRINKLER SYSTEM ZONE PLAN
VA BUILDING 1A GROUND FLOOR
SCALE: AS SHOWN

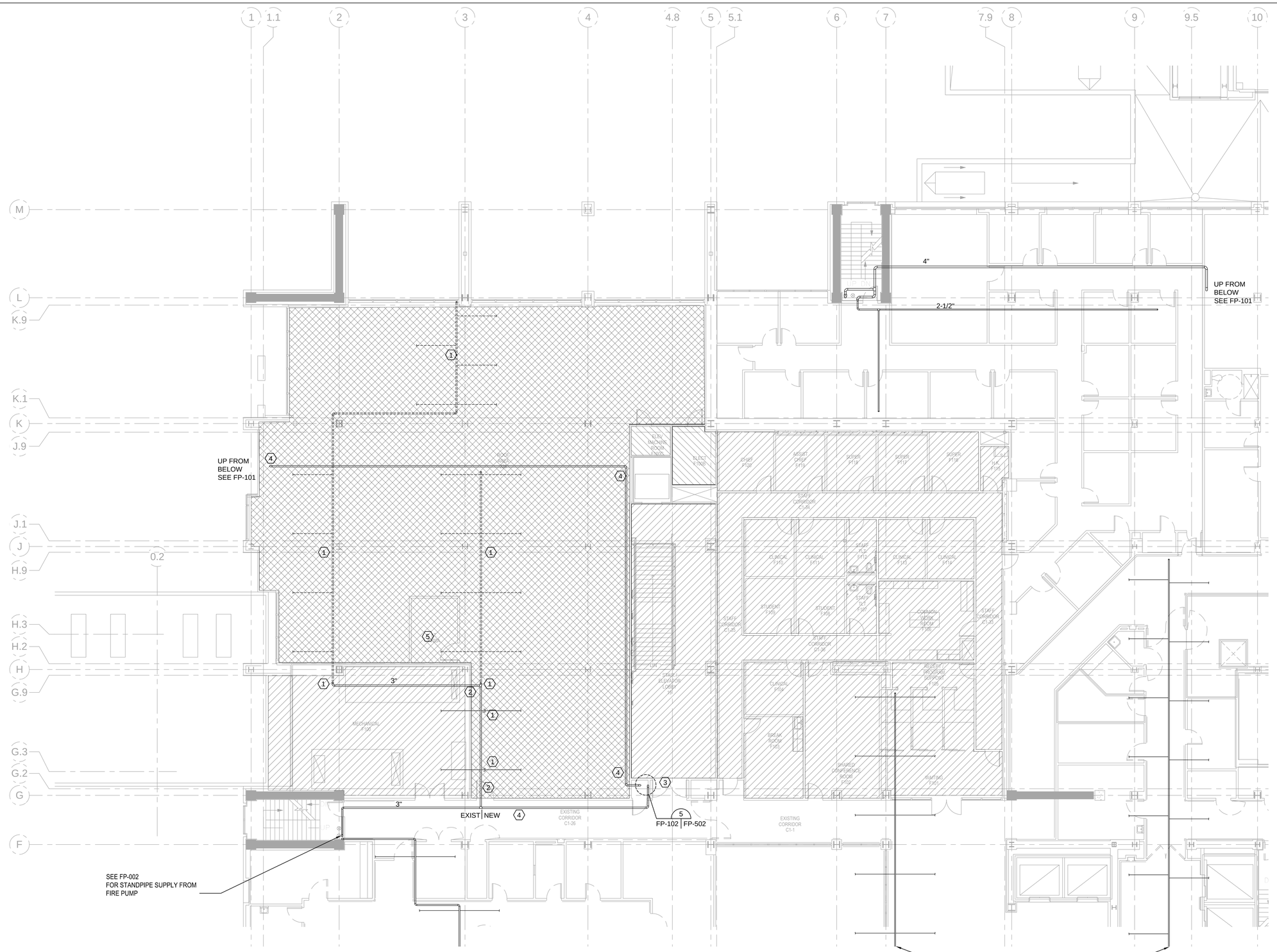
APPROVED PROJECT DIRECTOR:

PROJECT TITLE:
VA Building 1A Entrance Expansion

LOCATION:
VAMC, Memphis, Tennessee

DATE: Jan 27, 2014
CHECKED: WBH
DRAWN: PJP

PROJECT NUMBER: 614-318
BUILDING NUMBER: 1A
DRAWING NUMBER: FP-101
DWG. X OF X



SPRINKLER ZONE PLAN
VA BUILDING 1A FIRST FLOOR
SCALE: 1/8"=1'-0"

GENERAL NOTES:

1. SEE SHEET FP-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.
2. PIPING SHOWN IS EXISTING. SEE FP-002 FOR ROUTING OF MAINS FROM FIRE PUMP TO STANDPIPES.
3. SEE FP-001 FOR DESCRIPTION OF BID ALTERNATES.

KEYED NOTES:

1. REMOVE EXISTING WET SPRINKLER BRANCH LINES AND HEADS IN UNHEATED SPACE. CAP EXISTING PIPING AT LOCATIONS SHOWN.
2. INSTALL HEAT TAPE AND INSULATION ON MAINS IN UNHEATED SPACE. HEAT TAPE SHALL BE SELF LIMITING 115V TYPE, WITH A CAPACITY OF NOT LESS THAN FIVE WATTS PER FOOT. USE TWO TURNS OF HEAT TAPE PER LINEAR FOOT OF PIPE. HEAT TAPE SHALL BE ENERGIZED AUTOMATICALLY WHEN SPACE TEMP FALLS BELOW 40°F. PROVIDE NEON INDICATING LIGHTS IN EACH CIRCUIT FOR VERIFICATION OF PROPER OPERATION. EACH NEON LIGHT SHALL BE CLEARLY VISIBLE AFTER THE INSTALLATION OF THE INSULATION OVER THE PROTECTED PIPING. FIRE ALARM PANEL SHALL MONITOR HEAT TAPE CIRCUIT.
3. INSTALL NEW DRY PIPE VALVE AND AIR COMPRESSOR AT LOCATION INDICATED. SERVE DRY PIPE SYSTEM IN UNHEATED SPACE FROM THIS NEW RISER.
4. EXTEND WATER SUPPLY TO NEW DRY PIPE ALARM VALVE. ROUTE PIPE FROM NEW DRY PIPE RISER TO NEW FIRE DEPARTMENT CONNECTION AS INDICATED. SEE DRAWING FP-101 FOR CONTINUATION.
5. EXTEND WET PIPE SPRINKLER SYSTEM INTO IT SPACE F100A FROM ADJACENT HEATED MECHANICAL ROOM F100.

HAZARD CLASSIFICATION:

- LIGHT HAZARD 0.10 GPM/SQFT. OVER 1500 SQFT
- ORDINARY HAZARD GROUP ONE 0.15 GPM/SQFT. OVER 1500 SQFT
- LIGHT HAZARD DRY SYSTEM 0.10 GPM/SQFT. OVER 1950 SQFT

8 0 8 16
SCALE: 1/8" = 1'-0"

FULLY SPRINKLERED

Revisions:	Date:

CONSULTANTS:

Allen & Hoshall
engineering since 1915
1661 International Drive Memphis, TN 38120
901 820 0820 fax 901 683 1001
www.allenhoshall.com

FIRE PROTECTION

Robert and Company
Engineers, Architects, Planners
229 Peachtree Street, N.E. International Tower
Suite 2000 Atlanta, Georgia 30303-1629
404 577-4000 FAX: 404 577-7119

RAC Project 11023

WILLIAM B. HEYWARD REGISTERED ENGINEER AGRICULTURE No. 22045 STATE OF TENNESSEE

ARCHITECT/ENGINEERS:

brg3s architects
119 S. Main Street Suite 200
Memphis, Tennessee 38103
t 901.260.9600
f 301.521.1337
w brg3s.com

DRAWING TITLE: SPRINKLER SYSTEM ZONE PLAN VA BUILDING 1A FIRST FLOOR

SCALE: AS SHOWN

APPROVED PROJECT DIRECTOR:

PROJECT TITLE: **VA Building 1A Entrance Expansion**

LOCATION: VAMC, Memphis, Tennessee

DATE: Jan 27, 2014 | CHECKED: WBH | DRAWN: PJP

PROJECT NUMBER: 614-318

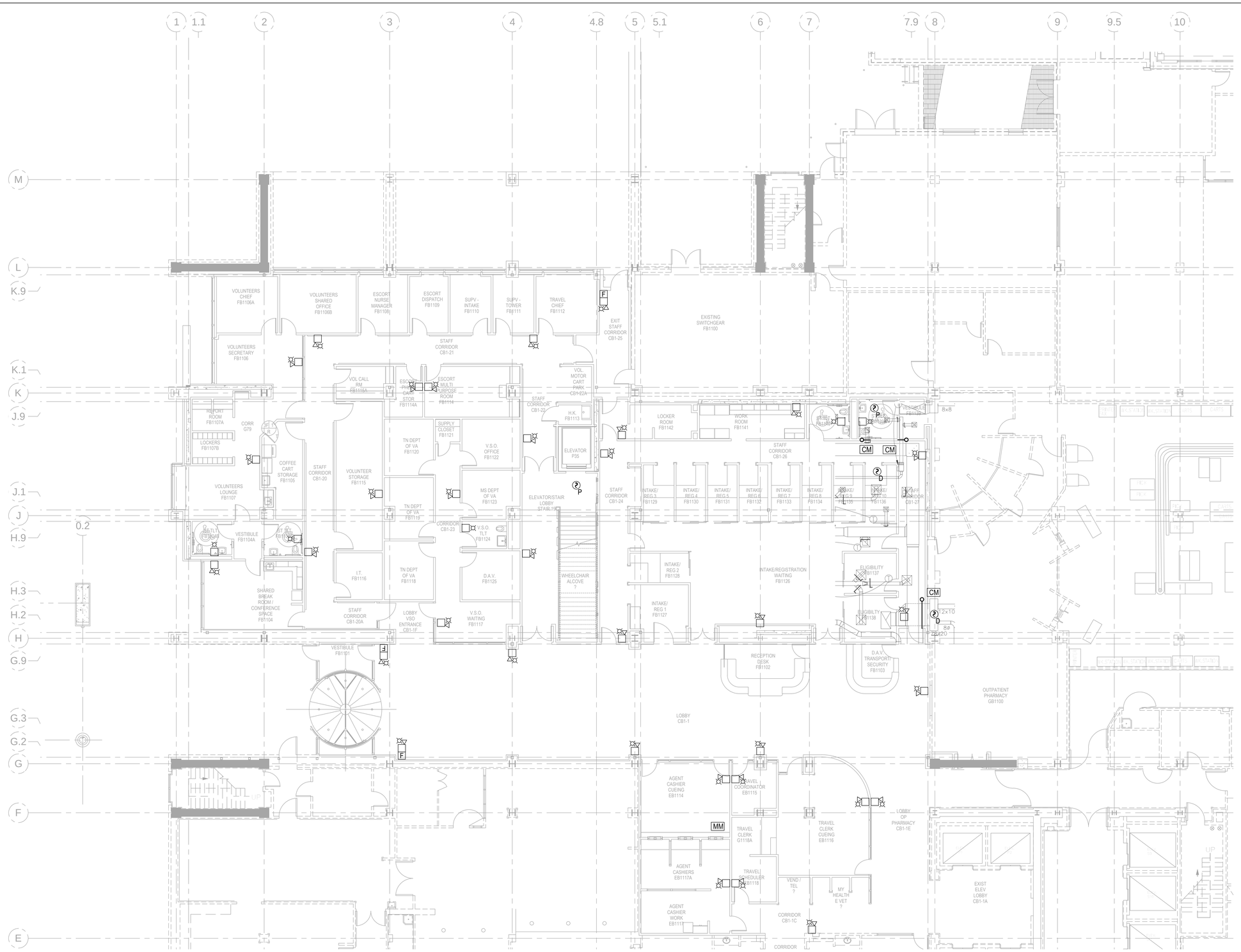
BUILDING NUMBER: 1A

DRAWING NUMBER: FP-102

DWG. X OF X

GENERAL NOTES:

1. SEE SHEET FP-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.
2. SEE SHEET FP-001 FOR DESCRIPTION OF BID ALTERNATES.
3. SMOKE DAMPERS ARE INSTALLED PER SHEET MH-101.



8 0 8 16

SCALE: 1/8" = 1'-0"

1 FP103 FP105 FIRE ALARM DEVICE PLAN
VA BUILDING 1A GROUND FLOOR

SCALE: 1/8"=1'-0"

FULLY SPRINKLERED

Revisions:	Date:

CONSULTANTS:

Allen & Hoshall
engineering since 1915
1661 International Drive Memphis, TN 38120
901 820 0820 fax 901 683 1001
www.allenhoshall.com

FIRE PROTECTION

Robert and Company
Engineers, Architects, Planners
229 Peachtree Street, N.E. International Tower
Suite 2000 Atlanta, Georgia 30303-1629
404 577-4000 FAX: 404 577-7119

RAC Project 11023

WILLIAM B. HEYWARD — REGISTERED ENGINEER — AGRICULTURAL — No. 22645 — STATE OF TENNESSEE — 1-31-2014

ARCHITECT/ENGINEERS:

brg3s architects

119 S. Main Street Suite 200
Memphis, Tennessee 38103
t 901.260.9600
f 301.521.1337
w brg3s.com

DRAWING TITLE: FIRE ALARM DEVICE PLAN VA BUILDING 1A GROUND FLOOR
SCALE: AS SHOWN

APPROVED PROJECT DIRECTOR:

PROJECT TITLE: **VA Building 1A Entrance Expansion**

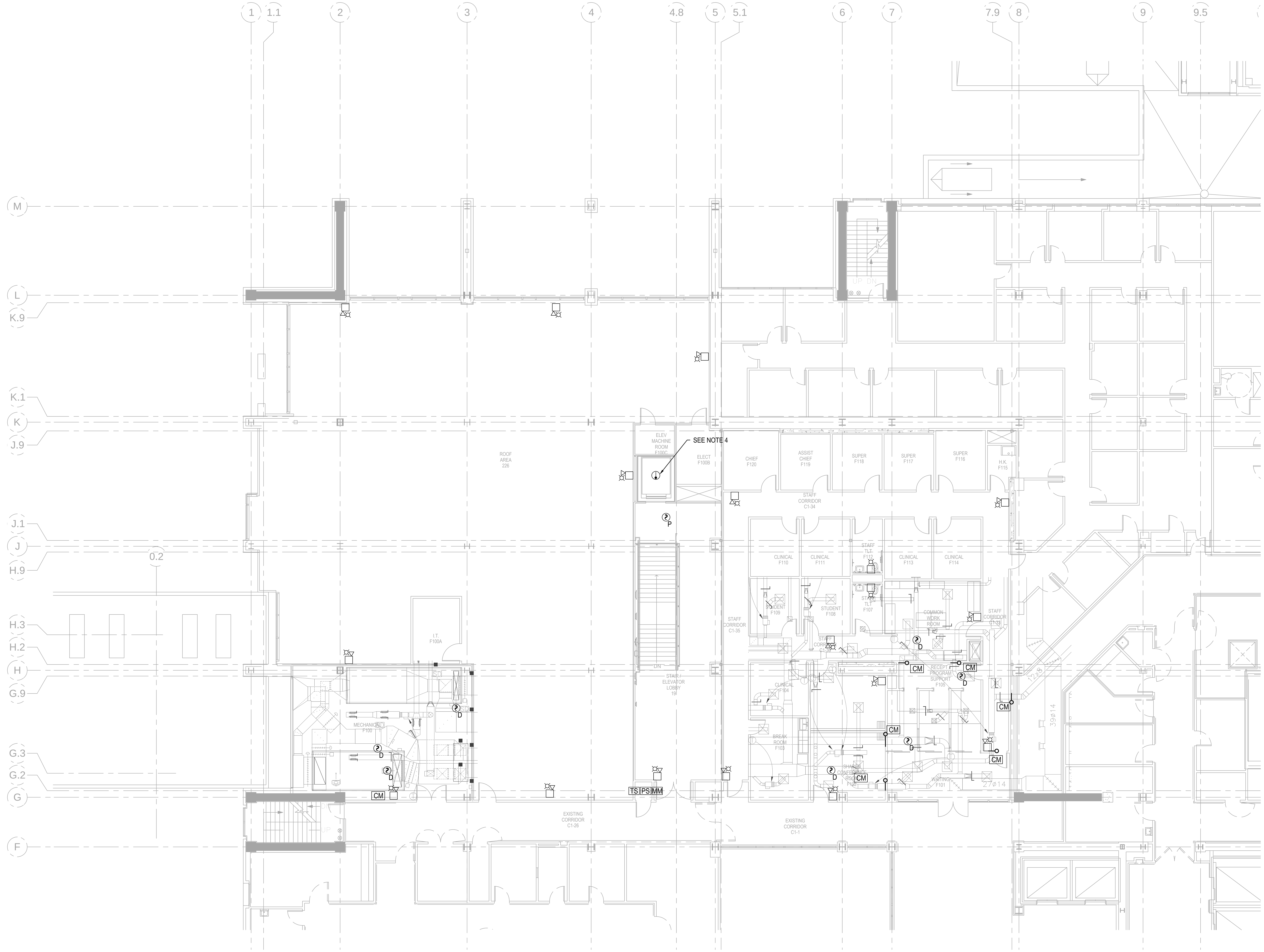
LOCATION: VAMC, Memphis, Tennessee

DATE: Jan 27, 2014 | CHECKED: WBH | DRAWN: PJP

PROJECT NUMBER: 614-318
BUILDING NUMBER: 1A
DRAWING NUMBER: FP-103
DWG. X OF X

GENERAL NOTES:

1. SEE SHEET FP-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS.
2. SEE SHEET FP-001 FOR DESCRIPTION OF BID ALTERNATES.
3. SMOKE DAMPERS ARE INSTALLED PER SHEET MH-102.
4. INSTALL HEAT DETECTOR IN TOP OF ELEVATOR SHAFT.



FIRE ALARM DEVICE PLAN
VA BUILDING 1A FIRST FLOOR

1 FP104 FP104 SCALE: 1/8"=1'-0"

8 0 8 16
SCALE: 1/8" = 1'-0"

FULLY SPRINKLERED

Revisions:	Date:

CONSULTANTS:

Allen & Hoshall
engineering since 1915
1661 International Drive Memphis, TN 38120
901 820 0820 fax 901 683 1001
www.allenhoshall.com

FIRE PROTECTION
Robert and Company
Engineers, Architects, Planners
229 Peachtree Street, N.E. International Tower
Suite 2000. Atlanta, Georgia 30303-1629
404 577-4000 FAX: 404 577-7119

RAC Project 11023

WILLIAM B. HEYWARD REGISTERED ENGINEER AGRICULTURE COMMERCE No. 22645 STATE OF TENNESSEE
Jan. 24, 2014

ARCHITECT/ENGINEERS:

brg3s architects
119 S. Main Street Suite 200
Memphis, Tennessee 38103
t 901.260.9600
f 301.521.1337
w brg3s.com

DRAWING TITLE:
FIRE ALARM DEVICE PLAN
VA BUILDING 1A FIRST FLOOR
SCALE: AS SHOWN

APPROVED PROJECT DIRECTOR:

PROJECT TITLE:
VA Building 1A
Entrance Expansion

LOCATION:
VAMC, Memphis, Tennessee

DATE: **Jan 27, 2014** CHECKED: WBH DRAWN: PJP

PROJECT NUMBER: 614-318
BUILDING NUMBER: 1A
DRAWING NUMBER: FP-104
DWG. X OF X

SEISMIC BRACING NOTES:

1. SEISMIC RESTRAINTS SHALL BE PROVIDED AND INSTALLED FOR THE FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH REQUIREMENTS OF NFPA 13 CHAPTER 9 AND IBC SECTION 1613. SEE DRAWING FP-001 FOR SEISMIC DESIGN DATA FOR THIS LOCATION.

3. DETAILS AND LOCATIONS OF SEISMIC BRACING ASSEMBLIES AND COMPONENTS SHALL BE INCLUDED WITH THE SHOP DRAWINGS. ALL SEISMIC BRACING COMPONENTS SHALL BE UL LISTED AND FM APPROVED FOR THE INTENDED APPLICATION. INCLUDE CUT SHEETS FOR BRACING COMPONENTS WITH THE WORK PLANS. SEISMIC BRACING LOAD CALCULATIONS SHALL BE PERFORMED PER NFPA 13 AND INCLUDED WITH THE SHOP DRAWING SUBMITTAL.

4. TOLCO SEISMIC BRACE FITTINGS AND DETAILS ARE AN ACCEPTABLE MEANS OF SEISMIC PROTECTION. SPRINKLER CONTRACTOR IS FREE TO SUBSTITUTE OTHER APPROVED MEANS AND MATERIALS.

CLEARANCE

5. CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS, AND FOUNDATIONS, INCLUDING DRAINS, FIRE DEPARTMENT CONNECTIONS, AND OTHER AUXILIARY PIPING.

6. UNLESS THE REQUIREMENTS OF NFPA ARE MET, WHERE PIPE PASSES THROUGH HOLES IN PLATFORMS, FOUNDATIONS, WALLS, OR FLOORS, THE HOLES SHALL BE SIZED SUCH THAT THE DIAMETER OF THE HOLES IS NOMINALLY 2-INCHES LARGER THAN THE PIPE FOR 1-INCH TO 3-1/2- INCH AND 4-INCHES LARGER THAN THE PIPE FOR PIPE 4-INCHES AND LARGER.

7. CLEARANCE FROM STRUCTURAL MEMBERS NOT PENETRATED OR USED COLLECTIVELY OR INDEPENDENTLY TO SUPPORT THE PIPE SHALL BE AT LEAST 2-INCHES.

8. WHERE CLEARANCE IS PROVIDED BY A PIPE SLEEVE, A NOMINAL DIAMETER 2-INCHES LARGER THAN THE NOMINAL DIAMETER OF THE PIPE IS ACCEPTABLE FOR PIPE SIZES 1-INCH THROUGH 3-1/2 INCHES AND THE CLEARANCE PROVIDED BY A PIPE SLEEVE OF NOMINAL DIAMETER 4-INCHES LARGER THAN THE NOMINAL DIAMETER OF THE PIPE IS ACCEPTABLE FOR PIPE SIZES 4-INCHES AND LARGER.

9. WHERE REQUIRED, THE CLEARANCE SHALL BE FILLED WITH A FLEXIBLE MATERIAL SUCH AS MASTIC.

10. CLEARANCE IS NOT REQUIRED FOR PIPING PASSING THROUGH GYPSUM BOARD OR EQUALLY FRANGIBLE CONSTRUCTION THAT IS NOT REQUIRED TO HAVE A FIRE RESISTANCE RATING.

11. CLEARANCE IS NOT REQUIRED IF FLEXIBLE COUPLINGS ARE LOCATED WITHIN 1-FOOT OF EACH SIDE OF A WALL, FLOOR, PLATFORM, OR FOUNDATION.

12. CLEARANCE IS NOT REQUIRED WHERE HORIZONTAL PIPING PASSES PERPENDICULARLY THROUGH SUCCESSIVE STUDS OR JOISTS THAT FORM A WALL OR FLOOR/CEILING ASSEMBLY.

13. CLEARANCE IS NOT REQUIRED WHERE NONMETALLIC PIPE HAS BEEN DEMONSTRATED TO HAVE INHERENT FLEXIBILITY EQUAL TO OR GREATER THAN THE MINIMUM PROVIDED BY FLEXIBLE COUPLINGS WITHIN 1 FOOT OF EACH SIDE OF A WALL, FLOOR, PLATFORM, OR FOUNDATION.

USE OF FLEXIBLE COUPLINGS

14. LISTED FLEXIBLE PIPE COUPLINGS JOINING GROOVED END PIPE SHALL BE PROVIDED AS FLEXURE JOINTS TO ALLOW INDIVIDUAL SECTIONS OF PIPING 2-1/2 INCHES OR LARGER TO MOVE DIFFERENTIALLY WITH THE INDIVIDUAL SECTIONS OF THE BUILDING TO WHICH IT IS ATTACHED. COUPLINGS SHALL BE ARRANGED TO COINCIDE WITH STRUCTURAL SEPARATIONS WITHIN A BUILDING. ALL OTHER COUPLINGS SHALL BE RIGID TYPE.

15. SYSTEMS HAVING MORE FLEXIBLE COUPLINGS THAN REQUIRED SHALL BE PROVIDED WITH ADDITIONAL SWAY BRACING AS REQUIRED BY NFPA 13.

16. SEISMIC SEPARATION ASSEMBLIES WITH FLEXIBLE FITTINGS SHALL BE INSTALLED WHERE SPRINKLER PIPING, REGARDLESS OF SIZE, CROSSES BUILDING SEISMIC SEPARATION JOINTS ABOVE GROUND LEVEL. A LATERAL AND LONGITUDINAL SWAY BRACE SHALL BE INSTALLED WITHIN 6-FEET OF A SEISMIC SEPARATION ASSEMBLY ON EACH SIDE OF THE ASSEMBLY.

SWAY BRACING

17. PIPING SHALL BE BRACED TO RESIST BOTH LATERAL AND LONGITUDINAL HORIZONTAL SEISMIC LOADS AND TO PREVENT VERTICAL MOTION RESULTING FROM SEISMIC LOADS.

18. SWAY BRACES SHALL BE DESIGNED TO WITHSTAND FORCES IN TENSION AND COMPRESSION, UNLESS THE REQUIREMENTS OF NFPA ARE MET. TENSION-ONLY BRACING SYSTEMS SHALL BE PERMITTED FOR USE WHERE LISTED FOR THIS SERVICE AND WHERE INSTALLED IN ACCORDANCE WITH THEIR LISTING LIMITATIONS AND INSTALLATION INSTRUCTIONS.

19. THE STRUCTURAL COMPONENTS TO WHICH BRACING IS ATTACHED SHALL BE DETERMINED TO BE CAPABLE OF CARRYING THE ADDED APPLIED SEISMIC LOADS.

20. FOR INDIVIDUAL BRACES, THE SLENDERNESS RATIO (L/R) SHALL NOT EXCEED 300 WHERE L IS THE LENGTH OF THE BRACE AND R IS THE LEAST RADIUS OF GYRATION.

21. WHERE THREADED PIPE IS USED AS PART OF A SWAY BRACE ASSEMBLY, IT SHALL NOT BE LESS THAN SCHEDULE 30.

22. ALL PARTS AND FITTING OF A BRACE SHALL LIE IN A STRAIGHT LINE TO AVOID ECCENTRIC LOADINGS ON FITTINGS AND FASTENERS.

23. FOR TENSION-ONLY BRACES, TWO TENSION-ONLY BRACE COMPONENTS OPPOSING EACH OTHER MUST BE INSTALLED AT EACH LATERAL OR LONGITUDINAL BRACE LOCATION.

24. FOR ALL BRACES, WHETHER OR NOT LISTED, THE MAXIMUM ALLOWABLE HORIZONTAL LOAD SHALL BE BASED ON THE WEAKEST COMPONENT OF THE BRACE WITH SAFETY FACTORS.

25. SWAY BRACING SHALL BE INSTALLED TIGHT TO THE PIPING, ALLOWING MINIMAL MOVEMENT ALONG THE AXIS OF RESTRAINT.

26. LATERAL SWAY BRACING SPACED A MAXIMUM INTERVAL OF 40 FEET ON CENTER SHALL BE PROVIDED ON ALL FEED AND CROSS MAINS REGARDLESS OF SIZE AND ALL BRANCH LINES AND OTHER PIPING WITH A DIAMETER OF 2-1/2 INCHES AND LARGER.

27. STARTER PIECES THAT ARE 2-1/2-INCHES IN DIAMETER AND 12-FOOT OR LESS IN LENGTH DO NOT REQUIRE LATERAL SWAY BRACES.

28. THE DISTANCE BETWEEN THE LAST LATERAL BRACE AND THE END OF THE PIPE SHALL NOT EXCEED 20 FEET.

29. THE LAST LENGTH OF PIPE AT THE END OF FEED OR CROSS MAIN SHALL BE PROVIDED WITH A LATERAL BRACE.

30. WHERE FLEXIBLE COUPLINGS ARE INSTALLED ON MAINS OTHER THAN AS REQUIRED BY NFPA, A LATERAL BRACE SHALL BE PROVIDED WITHIN 24 INCHES OF EVERY OTHER COUPLING, BUT NOT MORE THAN 40 FEET ON CENTER.

31. FOR LATERAL BRACES, THE LOAD SHALL INCLUDE ALL BRANCH LINES AND MAINS, UNLESS THE BRANCH LINES ARE PROVIDED WITH LONGITUDINAL BRACING, WITHIN THE ZONE OF INFLUENCE OF THE BRACE.

32. LATERAL BRACES SHALL BE ALLOWED TO ACT AS LONGITUDINAL BRACES IF THEY ARE WITHIN 24-INCHES OF THE CENTERLINE OF THE PIPING BRACED.

33. LONGITUDINAL SWAY BRACING SPACED AT A MAXIMUM OF 80 FEET ON CENTER SHALL BE PROVIDED FOR FEED AND CROSS MAINS.

34. FOR LONGITUDINAL BRACES, THE LOAD SHALL INCLUDE ALL MAINS WITHIN THE ZONE OF INFLUENCE OF THE BRACE.

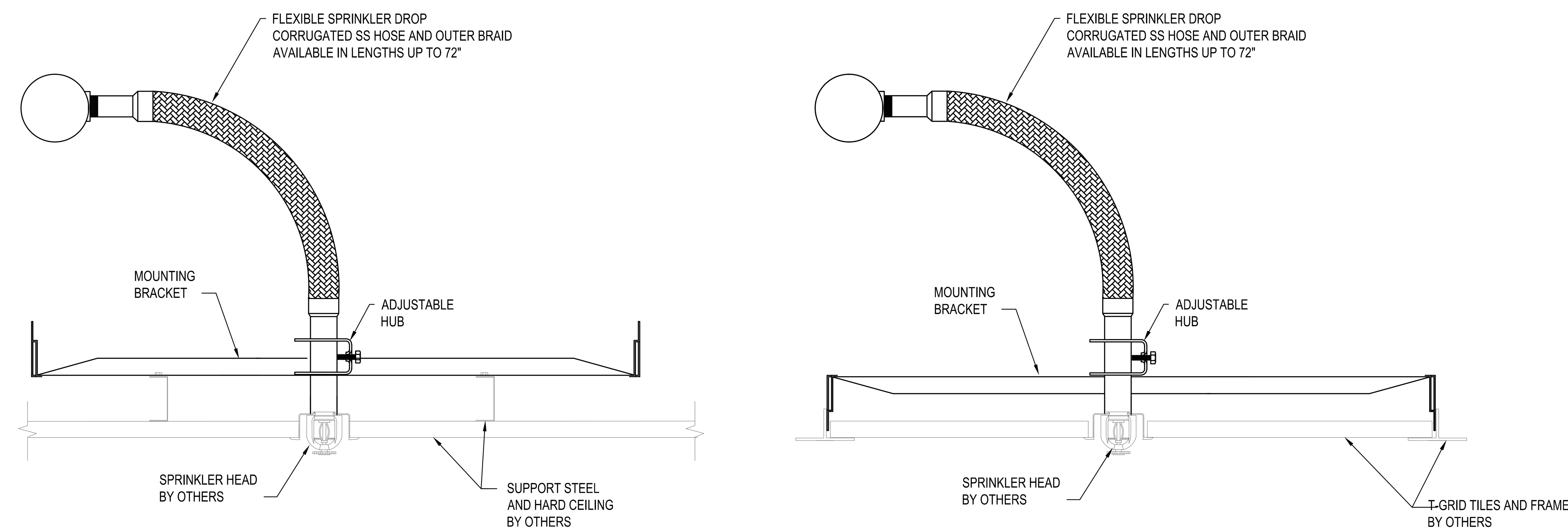
35. LONGITUDINAL BRACES SHALL BE PERMITTED TO SERVE AS LATERAL BRACES WHERE THEY ARE INSTALLED WITHIN 24 INCHES OF THE PIPING THAT IS BRACED LATERALLY.

36. THE DISTANCE BETWEEN THE LAST LONGITUDINAL BRACE AND THE END OF THE PIPE SHALL NOT EXCEED 40 FEET.

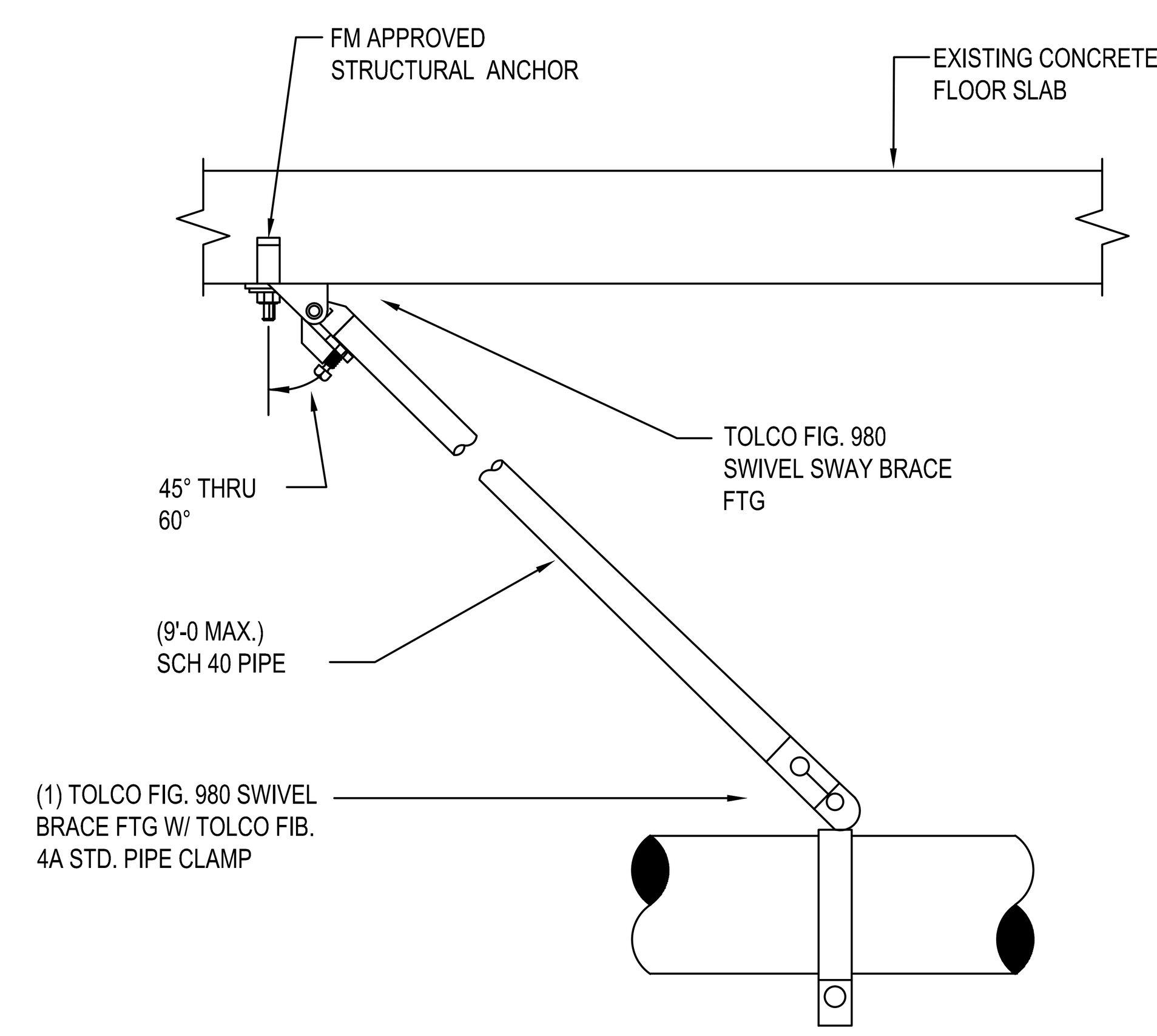
37. TOPS OF PIPE RISERS EXCEEDING 3 FEET IN LENGTH SHALL BE PROVIDED WITH FOUR-WAY LATERAL AND LONGITUDINAL BRACING. DISTANCE BETWEEN FOUR-WAY BRACES FOR RISERS SHALL NOT EXCEED 25 FEET.

GENERAL NOTES:

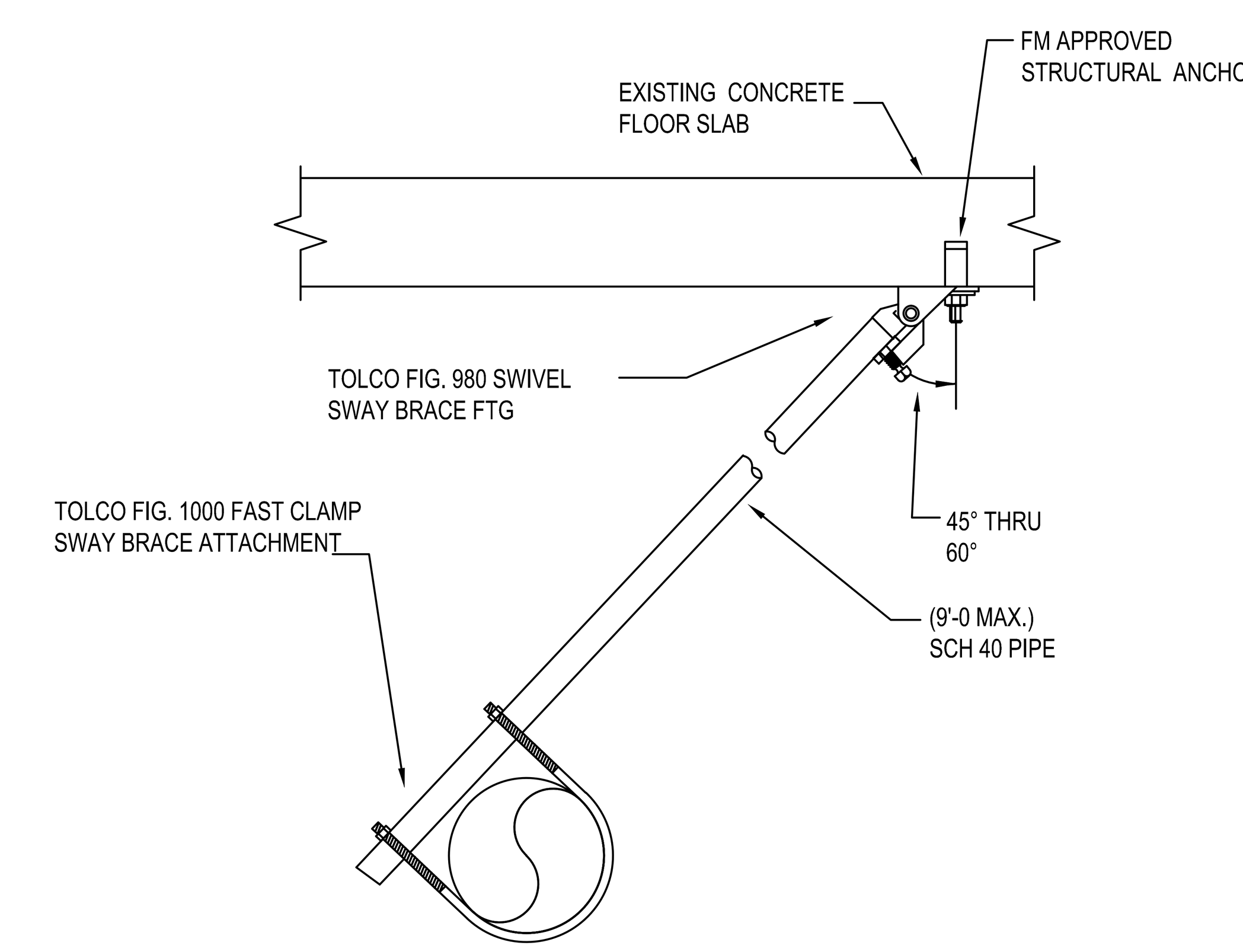
1. SEE SHEET FP-001 FOR GENERAL NOTES, LEGEND, AND ABBREVIATIONS .
2. SEE SHEET FP-001 FOR DESCRIPTION OF BID ALTERNATES.



3 — TYPICAL FLEXIBLE SPRINKLER HEAD ATTACHMENT
SCALE: NONE



1 — TYPICAL LONGITUDINAL SWAY BRACE
SCALE: NONE



2 — TYPICAL LATERAL SWAY BRACE
SCALE: NONE

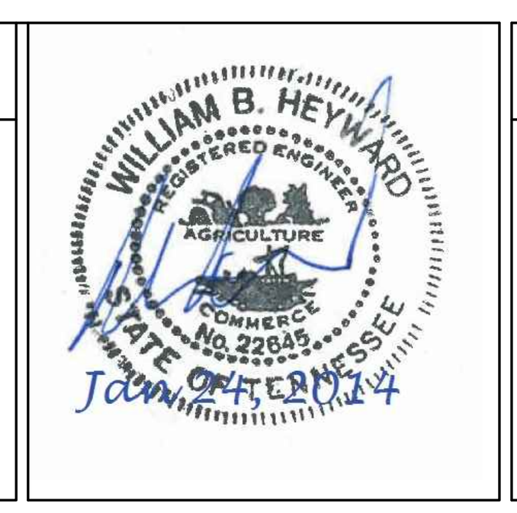
FULLY SPRINKLERED

Revisions:	Date:

CONSULTANTS:

Allen & Hoshall
engineering since 1915
1661 International Drive Memphis, TN 38120
901 820 0820 fax 901 683 1001
www.allenhoshall.com

FIRE PROTECTION
Robert and Company
Engineers, Architects, Planners
229 Peachtree Street, N.E. International Tower
Suite 2000. Atlanta, Georgia 30303-1629
404 577-4000 FAX: 404 577-7119
RAC Project 11023



ARCHITECT/ENGINEERS:

brg3s architects
119 S. Main Street Suite 200
Memphis, Tennessee 38103
t 901.260.9600
f 301.521.1337
w brg3s.com

DRAWING TITLE: FIRE PROTECTION DETAILS
SCALE: AS SHOWN
APPROVED PROJECT DIRECTOR:

PROJECT TITLE: **VA Building 1A Entrance Expansion**
LOCATION: **VAMC, Memphis, Tennessee**
DATE: **Jan 27, 2014**
CHECKED: WBH
DRAWN: PJP

PROJECT NUMBER: 614-318
BUILDING NUMBER: 1A
DRAWING NUMBER: FP-501
DWG. X OF X

GENERAL NOTES:

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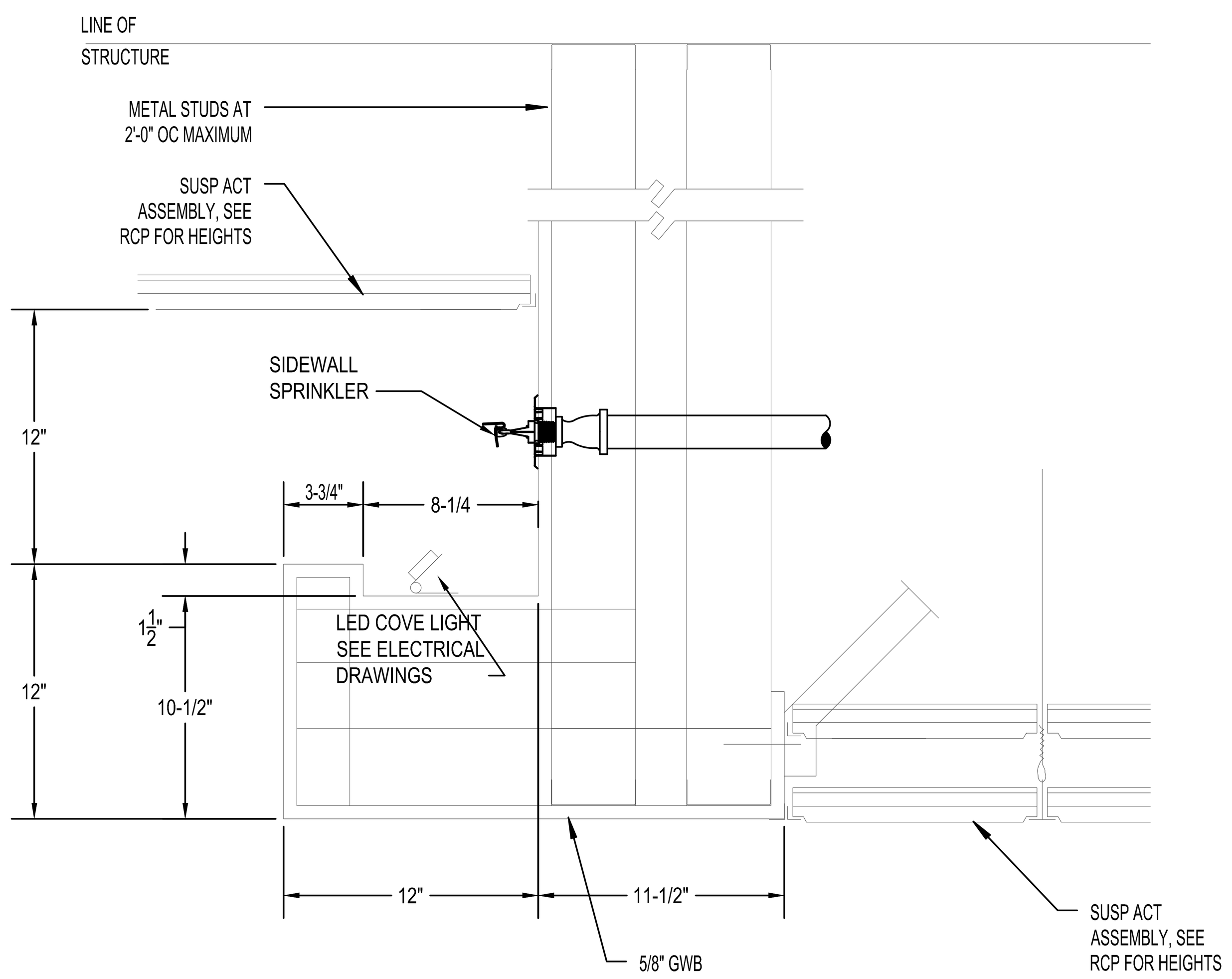
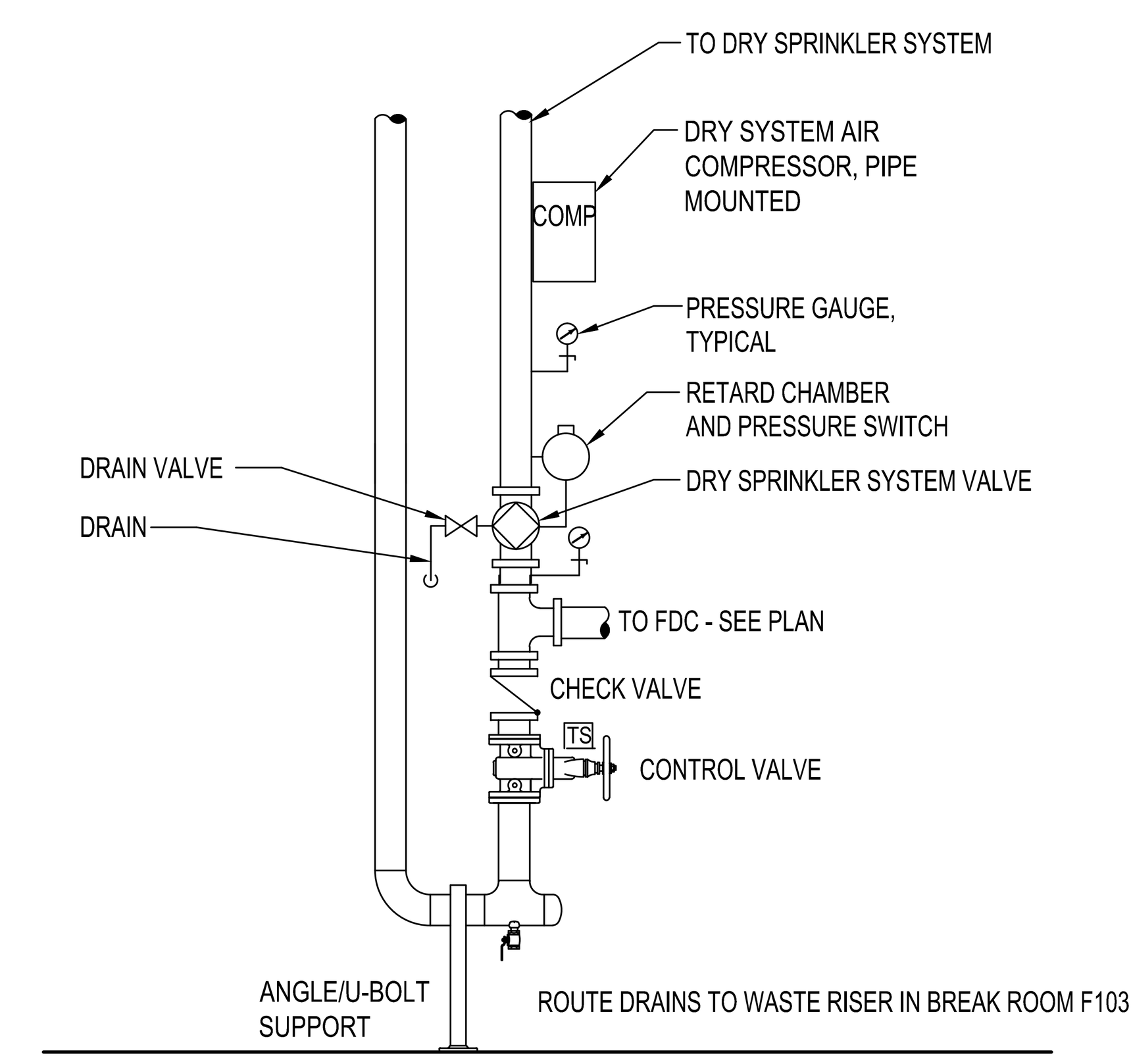


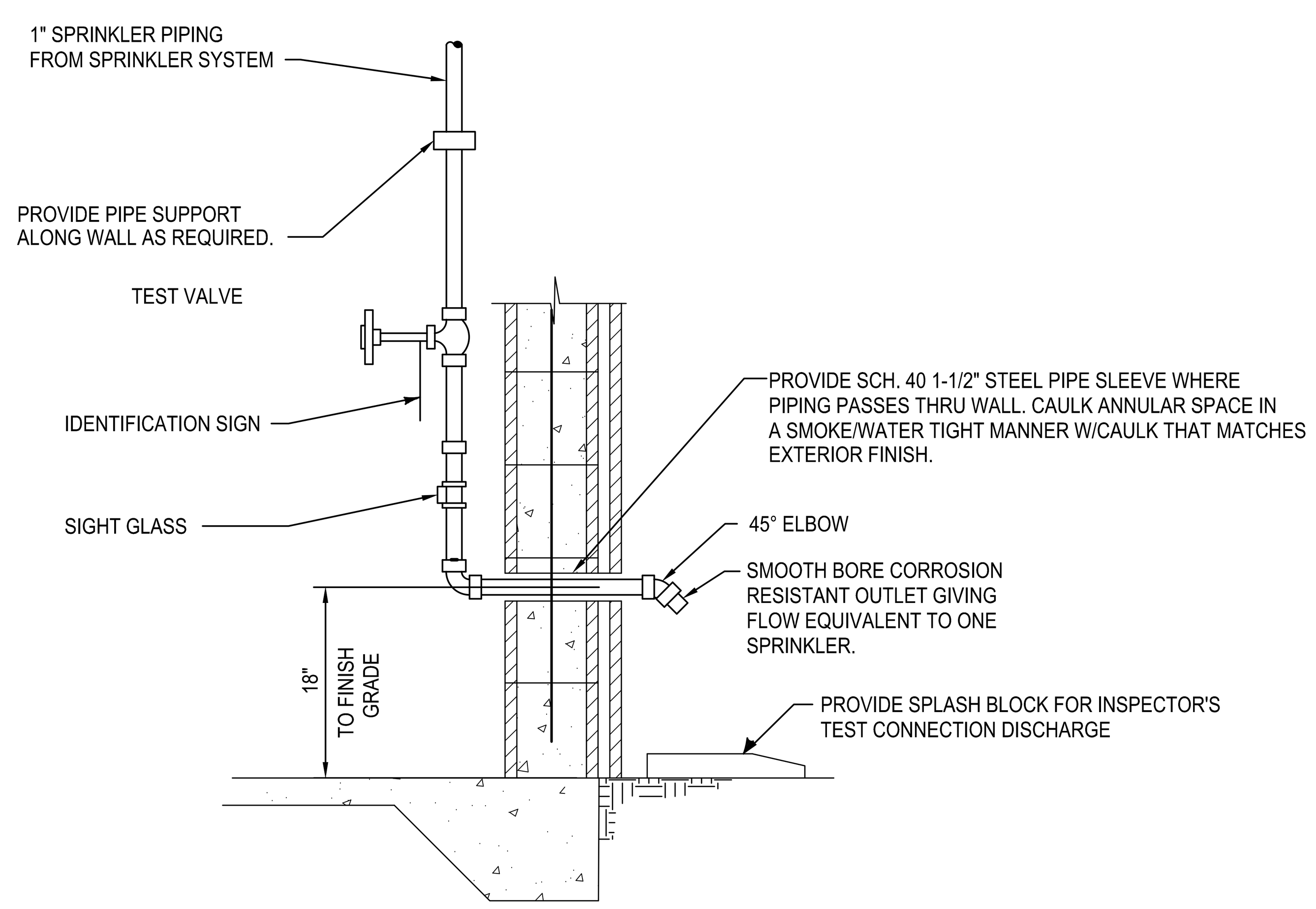
3 FP-101 FP-502 GROUND FLOOR LOBBY CEILING TRANSITION

SCALE: NONE



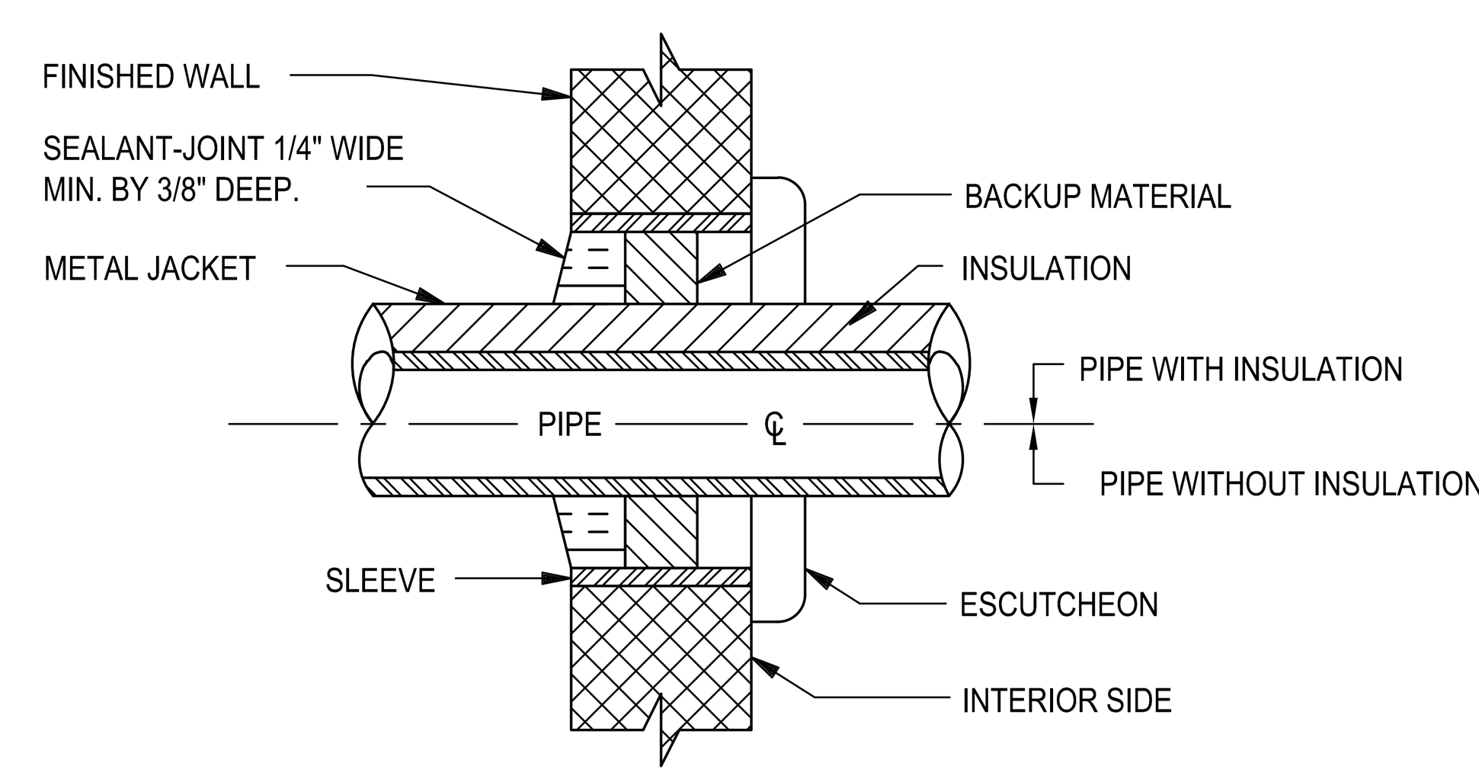
5 FP-102 FP-502 DRY PIPE ALARM VALVE

SCALE: NONE



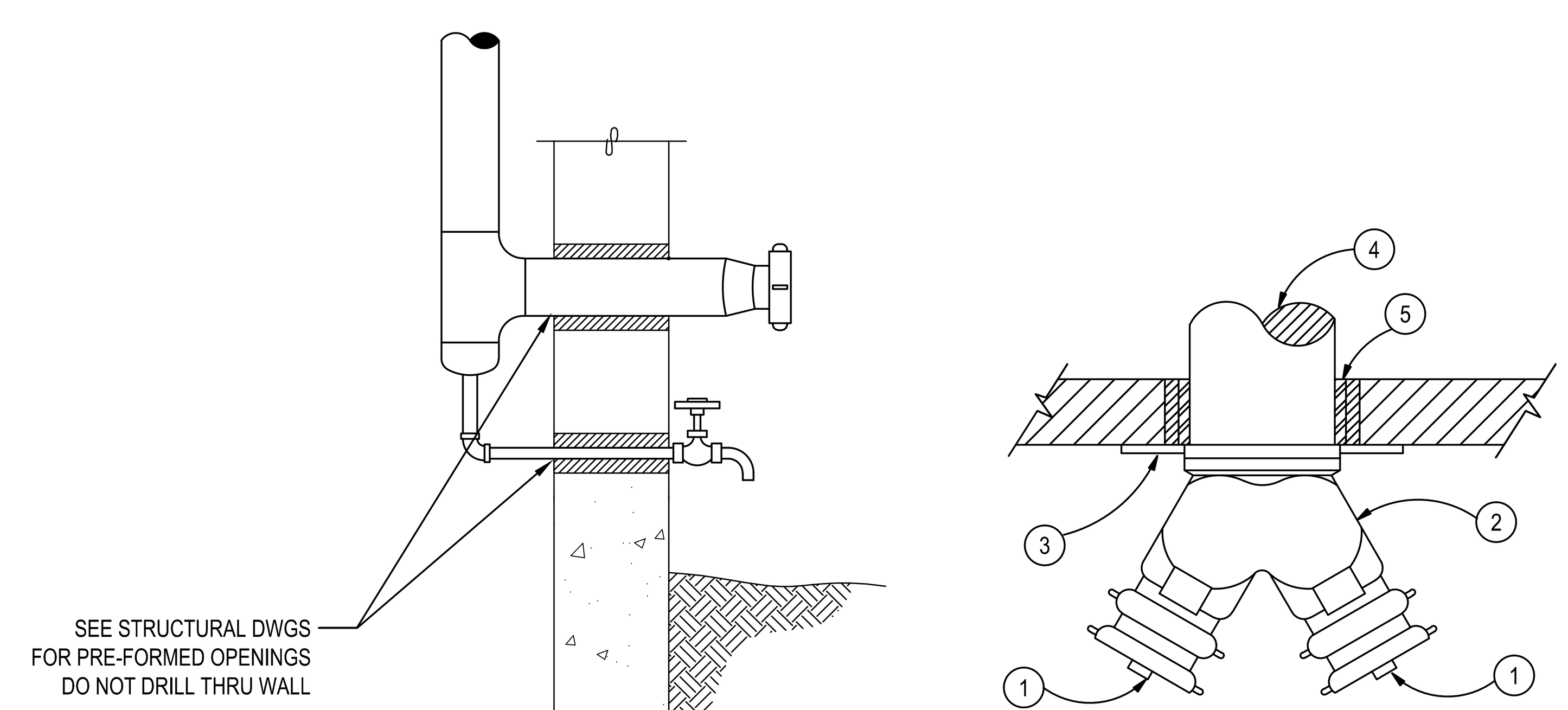
1 TYPICAL INSPECTORS TEST LOCATION

SCALE: NONE



2 TYPICAL WALL PENETRATION

SCALE: NONE



1. 2-1/2" OUTLET WITH BRASS CHAIN AND CAP
2. FINISH SHALL BE IAW SPECS
3. PROVIDE LETTERING "DRY PIPE AUTO SPKR"
4. TO RISER
5. CAULK ANNULAR SPACE IN A SMOKE TIGHT MANNER.

4 FP-101 FP-502 FIRE DEPT CONNECTION

SCALE: NONE

FULLY SPRINKLERED

Revisions:	Date:

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Allen & Hoshall
engineering since 1915
1661 International Drive Memphis, TN 38120
901 820 0820 fax 901 683 1001
www.allenhoshall.com

FIRE PROTECTION

Robert and Company
Engineers, Architects, Planners
229 Peachtree Street, N.E. International Tower
Suite 2000. Atlanta, Georgia 30303-1629
404 577-4000 FAX: 404 577-7119

RAC Project 11023

WILLIAM B. HEYWARD REGISTERED ENGINEER AGRICULTURE COMMERCE No. 22645 STATE OF TENNESSEE
Jan. 24, 2014

ARCHITECT/ENGINEERS:

brg3s architects
119 S. Main Street Suite 200
Memphis, Tennessee 38103
t 901.260.9600
f 301.521.1337
w brg3s.com

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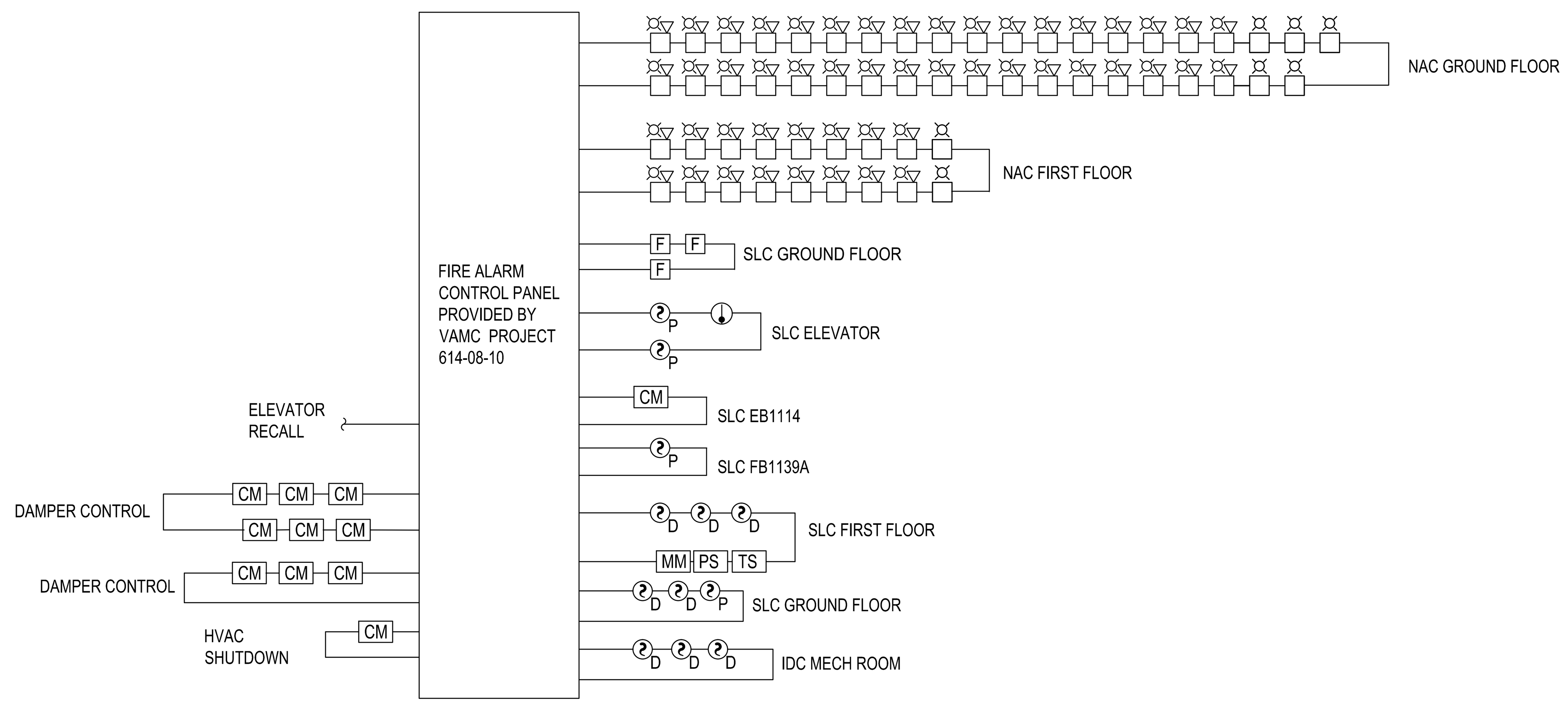

FIRE ALARM SYSTEM RISER DIAGRAM

SYSTEM INPUTS	ANNUNCIATION AT LOCAL PANELS				FIRE SUPPRESSION SYSTEM FUNCTIONS				TRANSMIT SIGNALS TO FIRE DEPARTMENT						AUXILIARY FUNCTIONS			EVACUATION SIGNALS	
	AUDIO-VISUAL FIRE ALARM INDICATION BY ZONE	AUDIO-VISUAL TROUBLE INDICATION BY ZONE	AUDIO-VISUAL COMMON TROUBLE INDICATION	AUDIO-VISUAL ALARM INDICATION BY DEVICE					COMMON TROUBLE SIGNAL PER BUILDING	SUPERVISORY SIGNAL BY DEVICE	COMMON FIRE ALARM PER GENERAL AREA	SPRINKLER WATER FLOW PER GENERAL AREA			SHUTDOWN ALL SUPPLY AND RECIRCULATING FANS	RELEASE MAGNETICALLY HELD SMOKE DOORS	CLOSE SMOKE DAMPER	FACILITY FIRE EVACUATION AUDIO-VISUAL SIGNAL	ELEVATOR RECALL
FIRE ALARMS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P		Q	R
MANUAL FIRE ALARM STATIONS	X			X							X					X		X	
SPOT-TYPE SMOKE DETECTORS	X			X							X				X	X		X	X
IN-DUCT SMOKE DETECTORS AT AIR HANDLERS															X				
ELEVATOR SHAFT HEAT DETECTOR	X			X							X								X
WATER FLOW SWITCHES-WET SPRINKLERS	X											X			X	X		X	
PRESSURE SWITCH - DRY PIPE SYSTEM	X			X								X			X	X		X	
SUPERVISORY SIGNALS																			
VALVE SUPERVISORY SWITCH - WET AND DRY SPRINKLER SYSTEMS		X								X									
IN-DUCT SMOKE DETECTORS										X							X		
HEAT TAPE - WET PIPES IN UNHEATED SPACES										X									
TROUBLE CONDITIONS																			
LOW BATTERY VOLTAGE			X						X										
CIRCUIT FAULT		X	X						X										
SUPERVISED COMPONENT FAILURE			X						X										
AC POWER FAILURE			X						X										

FACILITY FIRE DETECTION & ALARM SYSTEM FUNCTIONAL MATRIX

FIRE ALARM SYSTEM NOTES:

1. THE FIRE ALARM SYSTEM CONTRACTOR SHALL MODIFY THE EXISTING ADDRESSABLE FIRE ALARM SYSTEM AS SHOWN ON THE DRAWINGS.
2. THE EXISTING FIRE ALARM SYSTEM SERVING BUILDING 1-A IS A NOTIFIER AM2020/AFP101 PANEL, AND IS LOCATED IN BUILDING ONE IN ROOM CE113A.
3. THERE IS A FIRE ALARM SYSTEM UPGRADE PROJECT PLANNED FOR CONSTRUCTION IN 2011 ("FCA ELECTRICAL UPGRADE PHASE III", VA PROJECT 614-08-10) WHICH WILL REPLACE THE MAIN FIRE ALARM PANEL AND NOTIFICATION APPLIANCES THROUGHOUT BUILDINGS 1 AND 1-A AND OTHER BUILDINGS. FIRE ALARM SYSTEM CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THAT PROJECTS REQUIREMENTS AND ENSURE COMPATIBLE DESIGN AND INSTALLATION.
4. NEW NOTIFICATION APPLIANCES SHALL BE ADA COMPLIANT AND VOICE CAPABLE.
5. EACH INITIATING DEVICE SHALL REPRESENT A UNIQUE IDENTIFICATION TO THE SYSTEM SO THAT IN THE EVENT OF A FIRE ALARM OR SYSTEM TROUBLE ALARM INITIATION, THE FIRE ALARM CONTROL PANEL WILL INDICATE WHICH DEVICE HAS INITIATED THE ALARM OR TROUBLE SHOWN.
6. SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 72 "NATIONAL FIRE ALARM AND SIGNALING CODE", NFPA 101, "LIFE SAFETY CODE", VA "FIRE PROTECTION DESIGN MANUAL" APRIL 2009, AND THE PROJECT SPECIFICATIONS. EDITIONS OF NFPA STANDARDS IN EFFECT AT BID DATE SHALL APPLY.
7. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. IF ANY DISCREPANCIES ARE OBSERVED BETWEEN REQUIREMENTS OF THESE DRAWINGS AND THOSE OF THE SPECIFICATIONS, NOTIFY THE CONTRACTING OFFICERS TECHNICAL REPRESENTATIVE (COTR) FOR DISPOSITION.
8. FOR CODE INTERPRETATION AND ENFORCEMENT, THE AUTHORITY HAVING JURISDICTION (AHJ) FOR ALL VA PROJECTS IS ULTIMATELY THE DEPUTY UNDER SECRETARY FOR HEALTH FOR OPERATIONS AND MANAGEMENT (10N), WITH THE SAFETY AND FIRE PROTECTION ENGINEER (10NS) ACTING AS THE VA FIRE MARSHAL. AT THE MEDICAL CENTER LEVEL, THE RESPECTIVE NETWORK SAFETY MANAGER OR NETWORK SAFETY AND FIRE PROTECTION ENGINEER (SFPE) ACTS AS THE AHJ REPRESENTATIVE ON BEHALF OF 10NS.
9. SEE ARCHITECTURAL PHASING PLANS AND SPECIFICATIONS FOR WORK HOURS AND SCHEDULE OF WORK.
10. ALL NOTIFICATION APPLIANCE CIRCUIT WIRING SHALL BE #14 AWG MINIMUM UNLESS NOTED OTHERWISE.
11. ALL SIGNALING CIRCUIT WIRING SHALL BE #18 AWG MINIMUM UNLESS NOTED OTHERWISE.
12. FIRE ALARM NOTIFICATION APPLIANCE CIRCUITS SHALL BE LOADED TO NO MORE THAN 80% OF CAPACITY TO ALLOW FOR FUTURE DEVICE ADDITIONS.
13. FIRE ALARM SIGNALING CIRCUITS SHALL HAVE NO MORE THAN 80% OF THE MAXIMUM NUMBER OF DEVICES CONNECTED TO ALLOW FOR FUTURE DEVICE ADDITIONS.
14. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR TEE TAPS AND CIRCUIT ARRANGEMENTS.
15. TEE TAPPING OF NOTIFICATION APPLIANCE CIRCUIT WIRING IS NOT ALLOWED.
16. ALL FIRE ALARM CONDUCTORS SHALL BE SUPPLIED BY THE FIRE ALARM CONTRACTOR.
17. ALL END OF LINE RESISTORS SHALL BE TERMINATED AT TERMINAL BLOCKS. PROVIDE TERMINAL BLOCK IN JUNCTION BOX WHERE TERMINALS ARE NOT PRESENT AT THE END OF LINE DEVICE.
18. FURNISH AND INSTALL TERMINAL BLOCK FOR TERMINATION OF STROBE/HORN WIRING PRIOR TO CONNECTION TO POWER SUPPLY.
19. SMOKE SENSORS SHALL NOT BE LOCATED IN A DIRECT AIRFLOW, NOR CLOSER THAN ONE METER FROM AN AIR SUPPLY DIFFUSER OR RETURN AIR OPENING.
20. ALL AUDIBLE APPLIANCES WITHIN THE BUILDING AND ALL VISUAL APPLIANCES WITHIN THE SAME ROOM SHALL BE SYNCHRONIZED IN ACCORDANCE WITH NFPA 72.
21. WIRE AND CABLE FOR FIRE ALARM SYSTEMS SHALL BE UL LISTED AND LABELED AS COMPLYING WITH NFPA 70, ARTICLE 760.
22. SIGNALING LINE CIRCUITS: TWISTED, SHIELDED PAIR, NOT LESS THAN NO. 14 AWG. POWER-LIMITED FIRE ALARM CABLES SHALL NOT BE INSTALLED IN THE SAME CABLE OR RACEWAY AS SIGNALING LINE CIRCUITS.
23. SIGNALING LINE CIRCUITS SHALL BE CLASS A. NOTIFICATION APPLIANCE CIRCUITS SHALL BE CLASS B.
24. CIRCUIT INTEGRITY CABLE: TWISTED SHIELDED PAIR, NFPA 70, ARTICLE 760, CLASSIFICATION CI, FOR POWER-LIMITED FIRE ALARM SIGNAL SERVICE. UL LISTED AS TYPE FPL, AND COMPLYING WITH REQUIREMENTS IN UL 1424 AND IN UL 2196 FOR A 2-HOUR RATING.
25. NON-POWER-LIMITED CIRCUITS: SOLID-COPPER CONDUCTORS WITH 600-V RATED, 75 DEG C. COLOR-CODED INSULATION.
26. COLOR-CODE FIRE ALARM CONDUCTORS DIFFERENTLY FROM THE NORMAL BUILDING POWER WIRING. USE ONE COLOR-CODE FOR ALARM CIRCUIT WIRING AND A DIFFERENT COLOR-CODE FOR SUPERVISORY CIRCUITS. COLOR-CODE AUDIBLE ALARM-INDICATING CIRCUITS DIFFERENTLY FROM ALARM-INITIATING CIRCUITS. USE DIFFERENT COLORS FOR VISIBLE ALARM-INDICATING DEVICES.
27. ALL FIRE ALARM WIRING TO BE RUN IN MINIMUM 3/4-INCH EMT CONDUIT. ANY CABLE SPLICES OR TAPS ARE TO BE MADE IN STEEL JUNCTION BOXES. PAINT FIRE ALARM SYSTEM JUNCTION BOXES AND COVERS RED.
28. FIRE ALARM CIRCUITS AND EQUIPMENT CONTROL WIRING ASSOCIATED WITH THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN A DEDICATED RACEWAY SYSTEM. THIS SYSTEM SHALL NOT BE USED FOR ANY OTHER WIRE OR CABLE.
29. AUDIBLE NOTIFICATION APPLIANCES SHALL GENERATE PRIVATE MODE SOUND PRESSURE LEVELS, OVER VOICE CAPABLE DEVICES UNLESS OTHERWISE NOTED.
30. SMOKE DAMPERS IN CORRIDOR WALLS SHALL CLOSE UPON SIGNAL FROM CORRIDOR SMOKE DETECTORS IN ACCORDANCE WITH IBC 716.3.3.2 METHOD 4. SMOKE DAMPERS IN NON-CORRIDOR WALLS SHALL CLOSE ON SIGNAL FROM DUCT MOUNTED SMOKE DETECTORS IN ACCORDANCE WITH IBC 716.3.3.2 METHOD 1.
31. PROVIDE FIRE ALARM DEVICE CONNECTIONS TO HVAC SYSTEMS AND CONTROLS AND DEVICES FOR PROPER OPERATION INCLUDING SHUTDOWN. ON DETECTION OF FIRE IN ANY AREA OF THE BUILDING THE FIRE ALARM SYSTEM SHALL CAUSE THE AIR HANDLER SERVING THE SMOKE COMPARTMENT WHERE THE ALARM INITIATED TO SHUT DOWN, AND ALL SMOKE DAMPERS ASSOCIATED WITH THAT SMOKE COMPARTMENT TO CLOSE.
32. FIRE ALARM SYSTEM MONITORING AND CONTROL SHALL BE ACCOMPLISHED USING SUPERVISED FIRE ALARM WIRING TO WITHIN THREE FEET OF THE DEVICE BEING CONTROLLED OR MONITORED. IN THE CASE OF AN AIR HANDLER OR FAN, THE MOTOR STARTER OR VARIABLE FREQUENCY DRIVE IS THE DEVICE BEING CONTROLLED. IN THE CASE OF A SELF-CLOSING DAMPER HELD OPEN ELECTRICALLY, THE DAMPER POWER CIRCUIT IS THE DEVICE BEING CONTROLLED.
33. SEE THE LIFE SAFETY PLANS GI-100 AND GI-101 FOR PARTITION RATINGS.
34. CANDELA RATINGS/SETTINGS ON VISIBLE NOTIFICATION APPLIANCES SHALL BE 15 IN RESTROOMS AND 75 IN OTHER LOCATIONS UNLESS SHOWN ON THE DRAWINGS.

FULLY SPRINKLERED

Revisions: | Date:

CONSULTANTS:

Allen & Hoshall
engineering since 1915
1661 International Drive Memphis, TN 38120
901 820 0820 fax 901 683 1001
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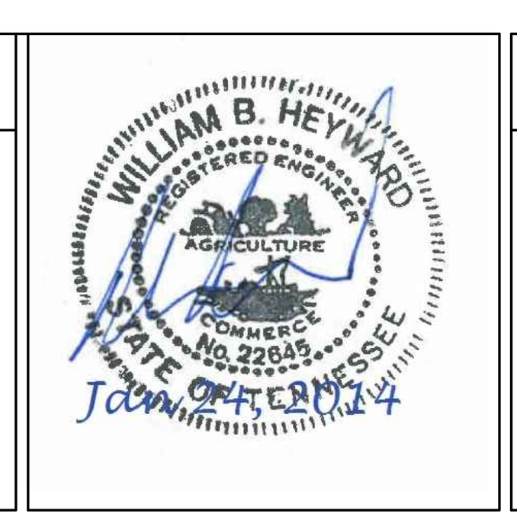

ARCHITECT/ENGINEERS:

brg3s architects
119 S. Main Street Suite 200
Memphis, Tennessee 38103
t 901.260.9600
f 301.521.1337
w brg3s.com

DRAWING TITLE: FIRE ALARM GENERAL NOTES AND RISER DIAGRAM
SCALE: AS SHOWN
APPROVED PROJECT DIRECTOR:

PROJECT TITLE: **VA Building 1A Entrance Expansion**
LOCATION: **VAMC, Memphis, Tennessee**
DATE: **Jan 27, 2014**
CHECKED: WBH
DRAWN: PJP

PROJECT NUMBER: 614-318
BUILDING NUMBER: 1A
DRAWING NUMBER: FP-601
DWG. X OF X